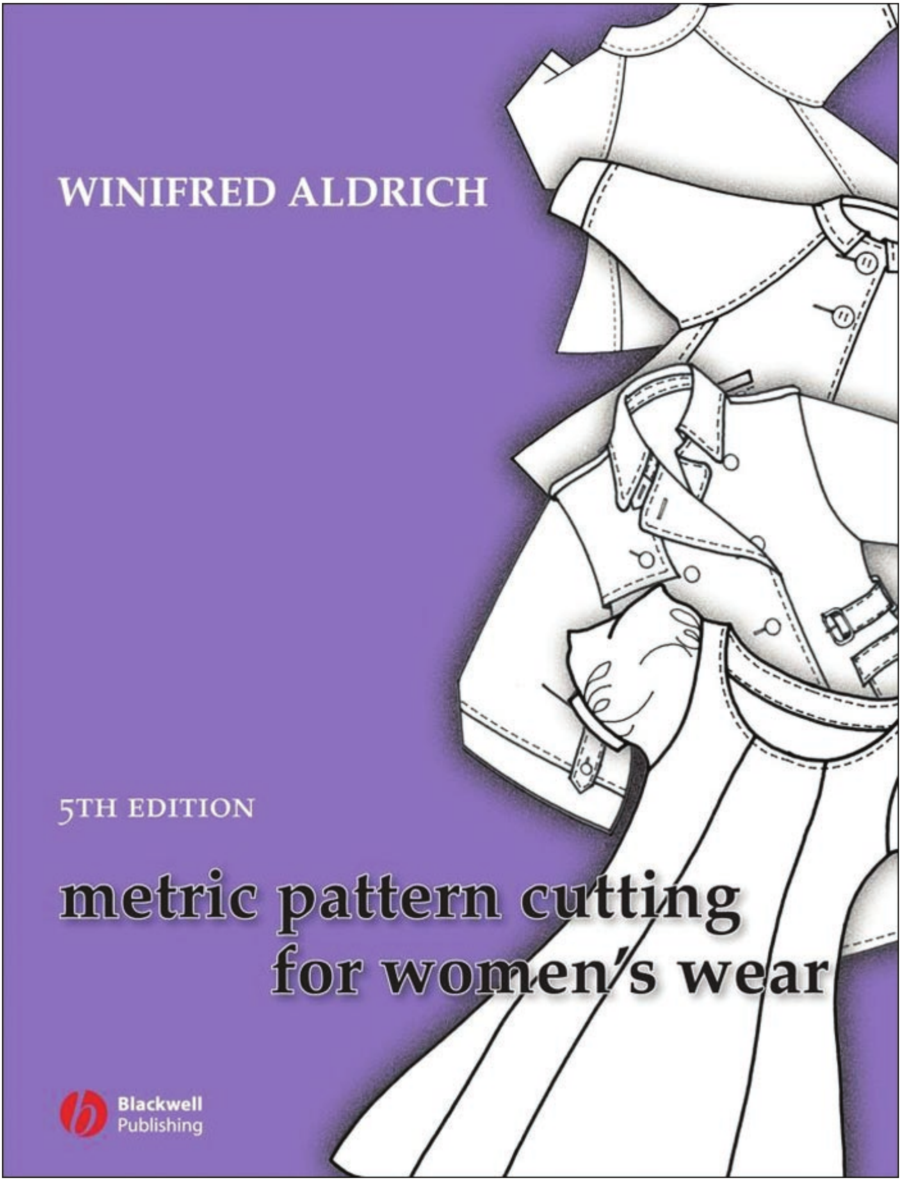
Metric Pattern Cutting for Women\'s Wear \(5th edition\) \(

Winifred Aldrich



WINIFRED ALDRICH

5TH EDITION

metric pattern cutting
for women's wear

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Metric Pattern Cutting

for Women's Wear

Fifth edition

Winifred Aldrich

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Blackwell Publishing editorial offices:

Blackwell Publishing Ltd, 9600 Garsington Road, Oxford OX4 2DQ, UK

Tel: +44 (0)1865 776868

Blackwell Publishing Inc., 350 Main Street, Malden, MA 02148-5020, USA Tel: +1 781 388 8250

Blackwell Publishing Asia Pty Ltd, 550 Swanston Street, Carlton, Victoria 3053, Australia Tel: +61 (0)3 8359 1011

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First published in Great Britain in 1976 by Mills & Boon Ltd, in 1981 by Bell & Hyman Ltd, and in 1987 by Unwin Hyman Ltd; revised edition 1979; revised edition 1982; revised edition 1985; reprinted by HarperCollins Publishers 1991; reprinted by Blackwell Scientific Publications 1992; third edition 1994; revised edition 1997; fourth edition 2004; fifth edition 2008.

ISBN: 9781405175678

Library of Congress Cataloging-in-Publication Data

Aldrich, Winifred.

Metric pattern cutting for women's wear / Winifred Aldrich. – 5th ed.

p. cm.

Includes index.

ISBN-13: 978-1-40517567-8 (hardback : alk. paper)

ISBN-10: 1-4051-7567-2 (hardback : alk. paper) 1. Dressmaking–Pattern design. I. Title TT520.A43 2008

646.4′072–dc22

2007037107

A catalogue record for this title is available from the British Library
Set in 9 on 10 pt Palatino by SNP Best-set Typesetter Ltd., Hong Kong
Printed and bound in Singapore by Fabulous Printers Pte Ltd The publisher's policy is to use permanent paper from mills that operate a sustainable forestry policy, and which has been manufactured from pulp processed using acid-free and elementary chlorine-free practices. Furthermore, the publisher ensures that the text paper and cover board used have met acceptable environmental accreditation standards.

For further information on Blackwell Publishing, visit our website:
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Acknowledgements

I would like to thank:

- Hilary Candler and Alec Aldrich for their help with the original edition.

- The British Standards Institution for their information on size designation of women's wear.

- The SATRA footwear Technology Centre for their information.

- The following people and companies who supplied information and photographs for the chapter on computer aided design: assyst-bullmer, Germany; Gerber Technology, Manchester; Katherine Townsend and Gillian Bunce, The Nottingham Trent University; Lectra, France; Optitex, New York; BLUE FOX NedGraphics BV, Netherlands; Visualretailing, Netherlands.

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4

Introduction

Revised edition 2008 This

fifth edition of the

fashion degree or diploma courses or for students in

original book remains true to its original concept,

upper schools who are studying advanced dress and

which offered a range of good basic blocks, an

textile subjects. Chapter 13 deals specifically with introduction to the basic principles of pattern cutting drafting the block for individual figures. This will be and gave a few examples of their application into useful for women who make clothes for themselves,

garments. The principal aim was to give students

in order to create and develop their own individual

confidence in their ability to develop a unique style style, or women who find mass produced clothes an of pattern cutting and to offer tutors a starting point uneasy fit.

from which they could extend their students'

Some garment patterns, particularly in couture

knowledge.

design, are constructed by draping on the dress

The new inclusions offered in the 2004 edition

stand. However, pattern cutting from blocks or

remain. These responded to the way fabrics and

adaptation of existing patterns is now widely used

fashion have changed the cut and sizing of garments

by the dress trade because of its accuracy of sizing in different manufacturing processes. The great

and the speed with which ranges can be developed.

expansion of casual wear, in jersey or stretch fabrics, Pattern cutting by this method is a means of has led to the expansion of *flat cutting* with no achieving a shape around the body so that, although darting to create the shape. The 2004 edition devoted the body and therefore the body blocks remain a whole section to this type of cutting and the section constant, there is no limit to the ideas that can be has been extended in this edition. However, students

followed through into workable designs. However,

have to understand how to create shape through

the designer must always be conscious that the body

cutting alone, in fact, *form cutting,* and therefore the is a form. This can be difficult when one has to relate first section of the book still covers this technique.

flat pieces of paper to a design that is basically

The major difference in this new edition is the

sculptural when it is completed. In addition, the

introduction of colour. This will help students to form will move and this must be exploited in the cut recognize the different coded sections in the book.

of the garment. A moving shape is more visually

The addition of colour offers a major improvement

exciting than a still form, but there are practical

to the updated chapter on computer-aided design

problems to be considered in allowing for this

(CAD). This now offers to first year design and

movement. The system of pattern cutting offered in

clothing students a good introduction to the this book attempts to make the student more fully

technology.

aware of designing round the figure rather than

The size charts have been revised in order to

seeing it as a body that possesses only a front

respond to changes in body sizing, co-ordination

view.

with European size charts and to the ways that

Pattern cutting should be used in conjunction

clothes are marketed to different sectors of the

with a dress stand. This means that as the design

population. As many of the stores selling High-street evolves, proportion and line can be checked and fashion are attracting younger 'early teen' customers, corrected. Pattern cutting can achieve a shape the size chart for this market sector has been

quickly, but more complicated styles should be

extended down to a size 6.

made up into a muslin or calico toile so that the

The book remains written for beginners, students

result can be assessed on a form or a moving

who are starting practical pattern cutting as part of figure.

5

Pattern cutting and design

Pattern cutting by adapting shapes from block

economy and repeat making-up methods are the

patterns can be traced back to the middle of the priority. The second group is employed by ‘design—

nineteenth century. As the craft developed the basic

led’ manufacturers; they are able to produce original rules evolved, but rules can be broken or changed if ideas and experiment with new fabrics and

this comes from new creative directions. This

production processes.

concept of design has been responsible for the most

exciting changes in shape and cut during the last

There are some basic elements of design that affect

century. Poiret, Vionnet and Chanel, sensitive to

or may limit a designer in any field.

social and aesthetic influences, ‘promoted the body’

Colour and pattern These are the most dominant after it had been enclosed in structures for a century.

features in a fashion trend. Each season a colour

Although their interpretations differed, they were

theme emerges, occasionally spontaneously,

the innovators of soft, easy fitting clothes. Today, the sometimes influenced by top designers. However, changing social attitudes of many women have

most mass retailers rely on the style and colour

changed their attitudes to fashion; they buy clothes

predictions of the major forecasting agencies. New

to satisfy themselves and they are not prepared to be technologies now offer a revolution in printed restricted to a dictated line for a season or by an

textiles. Instead of allover repeat designs, outdated image of femininity.

unrepeating patterns and new scales of pattern can

Marrying design to fashion is a difficult process;

be achieved, thus offering new concepts in which

it can be overwhelmed by bizarre effects created

decoration is integral to the whole design.

by some stylists in the fashion media. They have

produced alternative images to the classic stylised

Fabric quality New technologies have also fashion page by their eclectic choice of garments and expanded the range of fabrics available to a designer.

their role has become increasingly important because

The aesthetic qualities of a fabric are often the

of the power they have to begin or influence major

inspiration which initiates a design. However, in

trends.

creating a new shape a designer has to consider five Designing at the level of couture or small designer crucial fabric qualities which could realize or destroy collections is very different from that of designing it. These are: *weight, thickness, shear, drape* and *stretch.*

for a mass market. Garments created for an

Whilst large companies have testing procedures that

individual client give a designer more freedom. The

can determine technical measures, the designer often

cost factor becomes less important and this allows

has to make instant judgements and therefore has to

the original idea to be carried through. Interesting be able to estimate the qualities of a fabric and

fabrics that are difficult to handle can be used, and idealise the final effect.

their surface qualities emphasised by decorative

Shape Whilst recognising the crucial role that techniques. The ‘cut’ of the garment is usually fabric choice plays in the realisation of design,

determined by draping on the stand, where the

its success rests with the quality of the pattern

intricacies of the cut can be developed. Designing for cutting. The domination of stretch fabrics in the individual clients allows the personality of the

mass market have meant an expansion of simple

wearer to be fused with the original idea. The rise of *flat pattern cutting* techniques which rely on the celebrity in the music industry and the media has stretch in the fabric to create the body shape.

developed a new, exciting market for some top

But stretch fabrics can be married with *form cutting* designers; it is a means by which they can promote to give quite different effects. Bias cutting adds to their designs and their name. Most major designers the drape quality of fabrics, and the use of layers can also create ‘designer collections’ which are produced affect the weight and thickness of the design. *Form* by manufacturing processes but the high price of the *cutting* of close fitting garments in fabrics without garments allows the ‘signature’ of their cut to remain sheer or drape, such as stiff silks, requires great skill.

and limited runs of specially printed or woven

fabrics to be used.

Line The interpretation of line and cut is the most The most limiting factors in designing for mass complex part of a designer’s work. Once a fashion

production are price and the production processes.

shape becomes established, the variations in cut to

Clothes also have to have ‘hanger appeal’; that is,

achieve it are infinite. The designers must use their people will be tempted to try them on or buy them skills to produce a range that will translate the latest for their look alone. Often dresses that look fashion across a range of sizes.

sensational on a moving body can look limp and

featureless on a clothes rail. There are two types of

Garment sampling

successful designers in the mass production fashion

trade. The first group is employed by ‘production—

Garment samples are prototype garments that are

led’ manufacturers; these designers can develop

made up so that the designer can check and refine

current fashion shapes but recognise that fabric

both the pattern and the construction of the garment.

6

In the early stages of the process a dress stand will It should be noted that at the present time much be used, but final decisions are usually taken when

discussion has been taking place in the fashion press a live model wears the garment. It is at this stage about the unreality of some designers using size 6 or that the other major design decisions, *colour* and size 8 models to display clothes, when the average *pattern*, *fabric quality*, *shape* and *line* can finally be size for women is approximately size 14.

assessed.

7

Fabrics

Designers have to acquire a deep understanding of in the warp and weft). These qualities will affect

the qualities of fabrics. Many designers specialise in quite dramatically how a pattern will be cut and designing a particular product, for example lingerie

how the final shape will be realised. A list of fabrics or sportswear. This means that they have to is shown below that is categorised into the different understand the basic properties of fabrics and testing fabric weights. Weight and thickness are generally procedures and be assured that the fabric will

closely linked, but some thick pile fabrics constructed perform well for their particular product.

with man-made fibres can be deceptively light. Shear The designer has to become familiar with the and drape are also often closely linked – these

types of woven and knitted structure of fabric.

qualities allow the cutting of soft body skimming

Knowledge of the basic source of fabrics and how

shapes. Today, the popularity of stretch fabrics, both this affects the enormous number of finishes that can woven and knitted, has been the most influential be applied to fabrics has to be acquired. However,

factor in cutting for mass produced garments. In the

the most important qualities that a designer must

edited list of fabrics below, knitted fabrics are listed consider when creating a design are: *weight, thickness,* in all columns because of the huge variety in *drape, stretch* and *shear* (the amount the fibres distort different weights.

Light–med.

Medium

Med.–heavy

Heavy

Afgalaine
Alpaca
Bedford cord
Astrakhan
Angora
Bagheera
Bouclé
Beaver
Bengaline
Barathea
Broadcloth
Double
Cashmere
Bark crêpe
Burlap
Duffle
Chino
Brocade
Camel hair
Felt
Chintz
Butcher
Canvas
Fur fabric

Ciré

Calico

Chenille

Knitted fabric

Crepon

Cavalry twill

Cheviot

Loden cloth

Dupion

Cloqué

Corduroy

Melton

Faille

Coutil

Donegal tweed

Plush

Foulard

Covert

Drill

Quilted

Gingham

Crêpe

Duck

Homespun

Damask

Dungaree

Honan

Denim

Duvetyn

Knitted fabric

Doeskin

Flannel

Lamé

Façonne velvet

Fleece

Matelasse

Gabardine

Flock

Mohair

Grenadine

Fustian

Moiré

Grosgrain

Harris tweed

Ottoman

Haircord

Honeycomb

Panama

Hopsack

Intarsia

Percale

Jacquard

Knitted fabric

Piqué

Jean

Llama fabric

Sateen

Knitted fabric

Moleskin

Satin

Panne velvet

Tapestry

Shantung

Repp

Ticking

Sharkskin

Sailcloth

Tweed

Slipper satin

Saxony

Velour

Surah

Serge

Venetian

Taffeta

Suitings

Vicuna fabric

Tricot

Tartan

Whipcord

Tussore

Velvet

Worsted

Velveteen

8

Tools and equipment for making patterns

A student should aim to acquire a good set of

Toile fabrics Calico is used for making toiles for equipment. However, some items are very designs in woven fabrics. Make sure the weight of

expensive. The items marked with an asterisk (*)

the calico is as close to the weight of the cloth as

denote those that are not essential immediately.

possible. Knitted fabric of the same stretch quality

must be used for making toiles for designs in jersey

Working surface A

flat working surface is required.

fabrics.

Ideally, it should be 90–92 cm high.

* *Metric square*

Paper Strong paper is used for patterns. Parchment or thin card should be used for blocks that are used * *Calculator* The calculator is now a common tool frequently.

in all areas of skill. If a calculator is not available use the table of aliquot parts (see Appendix, *Pencils* Use hard pencils for drafting patterns (2H), page 212).

coloured pencils for outlining complicated areas.

* *French curves* Plastic shapes and curves are *Fibre pens* For writing clear instructions on patterns.

available in a range of sizes; they are useful for

drawing good curves. A flexicurve which allows a

Rubber

shape to be manipulated is also available.

Metric ruler

* *Pattern notcher* This is a tool that marks balance points by snipping out a section of pattern paper.

Curved rule For drawing long curves.

* *Pattern punch*

Metre stick

Set square A large set square with a 45° angle is

* *Pattern hooks*

very useful; metric grading squares can be obtained.

* *Pattern weights* These keep pieces of pattern in *Metric tape measure* position on paper or cloth.

Tracing wheel

* *Model stands* Although not essential for a beginner, they are

invaluable to the serious student for *Shears* Use separate shears for cutting cloth and developing designs.

paper as cutting paper will blunt the blades.

* *Computer equipment* A description of computer *Sellotape* equipment can be found on pages 191–211.

Pins

The equipment above can be obtained from:

Franks Ltd, Kent House, Market Place, London One quarter and one fifth scale squares These are *W1W 8HY. Tel: 0207 636 1244;*

essential for students to record pattern blocks and

e-mail: info@rdfranks.co.uk

adaptations in their notebooks.

Morplan, 56 Great Tichfield Street, London W1W 7DF. Tel: 01279 435 333; Stanley knife

e-mail: web.support@morplan.com

Eastman Staples Ltd, Lockwood Road, Huddersfield Tailor's chalk For marking out the final pattern onto *HD1 3QW. Tel: 01484 888 888;* the cloth and for marking fitting alterations.

e-mail: enquiries@eastman.co.uk

PART ONE: CLASSIC FORM CUTTING

1 The basic darted bodice blocks

Industrial sizing systems

10

Standard body measurements

11

Constructing blocks

15

The close fitting bodice block

16

The easy fitting bodice block

18

The tailored jacket blocks

(close and easy fitting)

20

The classic coat blocks

(close and easy fitting)

22

The one-piece sleeve block

24

The two-piece sleeve block

26

The sleeveless blocks

28

Shaping the waist

29

The dress blocks

30

10

Industrial sizing systems

Measurement surveys collect measurement data to

would be published during 2006. However, the

produce sizing systems, they are very costly. To

different countries could not reach an agreement

obtain reliable data, thousands of subjects have to be on the coding methods offered. The standard is measured and it is very difficult to obtain public

therefore delayed whilst new proposals are

money for the task. The last survey that was entirely considered.

funded by the government and made publicly

The use of the standards by manufacturers is

available, was in 1957. Recent surveys have been

voluntary and explains the anarchic systems of

private ones done by individual companies or have

sizing that are found in High-street garment retailers.

been joint enterprises between the government and

Despite the work taking place to obtain more

large retailers. As the companies have borne all, or a consistent sizing both in the UK and Europe, the proportion, of the costs they see the information as

garments on sale in large and small retail outlets

commercially valuable and therefore it is withheld

appear to be giving less and less information.

from public use. This has happened to the data from

Pictograms with body measurements have virtually

the latest British survey which took place under the

disappeared. Few size charts that relate size codes to direction of the Department of Computer Science, body measurements are available in the stores and

University College, London. The survey was carried

many of the labels on garments only display a size

out using computer scanning equipment. A number

code. The large retailers argue that this practice is a of systems are now available to companies. Although response to customers' demands for simple labeling

some problems remain, the scanners can now make

and that most women recognise their size code. In

reliable recordings of most of the principal body

practice many women appear to select across two or

measurements required for clothing. They can also

three size codes depending on the store or the style.

create 3D images of the body which give useful

information about the changing shape of the

Size charts of body measurements

population. The biggest problem remains the cost; in

and coding

the present financial climate few companies are

The retail clothing sector that sells High-street

willing to invest in such innovative technology and

fashion to the young market uses size charts that fit they are nearly all in operation in government a youthful or athletic figure. Their ranges are very sponsored projects. A large number of surveys, attractive to young teenagers and therefore many

particularly those in developing countries, are

companies in this market have extended the lower

undertaken using manual techniques. A researcher

end of their size range and reduced the upper end of

from Manchester Metro University has developed a

the range. Two size charts for this market are

system of manual measurement using an

included in the book.

anthropometric stand and a special harness.

Size charts of body measurements for the mass—

market now appear to offer more generous

British and European standards

measurements within the coding system and some

companies are extending the ranges of larger sizes.

The British Standards Institution (BSI) has usually

Mail order catalogues offer customers body size

been a main guide to sizing, measurements and

charts with the related code numbers 10, 12, 14, etc, labeling. Four new standards under the heading *Size* but it is apparent that the measurements vary with *Designation of Clothes* have been adopted from CEN, reference to their niche markets.

the European Committee for Standardization. Most

European countries, including the UK, have signed

Size charts of body measurements

to adopt the standards agreed. The standards offered

in this book

by BSI at present are:

BS EN 13402-1: 2001 *Terms, definitions and body* (1) Body measurements – for young high fashion *measurement procedures.*

retail outlets, sizes 6–16, page 12.

BS EN 13402-2: 2002 *Primary and secondary* (2) Body measurements – for young high fashion *dimensions* (used for garments labeling).

retail outlets, sizes XS, S, M, L, XL, page 12.

BS EN 13402-3: 2004 *Measurements and intervals.*

(3) Body

measurements – for women's standard sizes,

The standard offers sizing in 4 cm and 6 cm

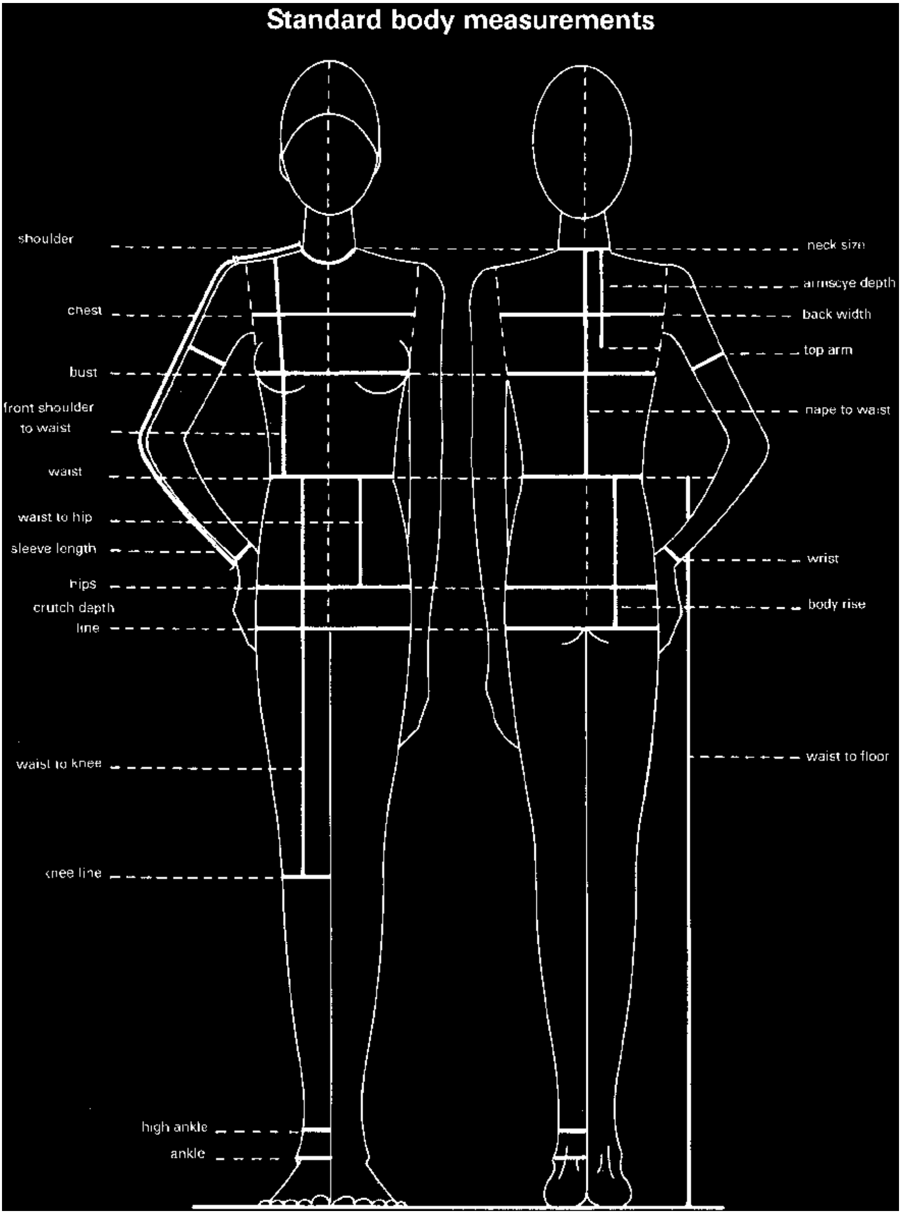
4 cm and 6 cm increments, sizes 8–22, page 13.

intervals. It was expected that a further standard, BS

(4) Body measurements – for women's standard

EN 13402-4, a new coding system for garments,

sizes, XS, S, M, L, XL, page 14.


Standard body measurements
shoulder
chest
bust
front shoulder to waist
waist
waist to hip
sleeve length
hips
crutch depth line
waist to knee
knee line
high ankle
ankle
neck size
armscye depth
back width
top arm
nape to waist
wrist
body rise
waist to floor

11

Standard body measurements

12

Body measurement chart for High-street fashion garments

(This size chart is useful for students creating high fashion wear to fit model figures.) The retail sector that sells high fashion to the young

market uses size charts that fit a youthful or athletic figure. Their ranges appeal to young teenagers and therefore many companies in this market have extended the lower end of their size range and reduced the upper end of the range. This size chart reflects these marketing pressures. The even size increments between the sizes have been constructed for simple grades.

Note For garments sizes (e.g. cuff sizes and trouser bottom widths) see the size chart on page 13.

Young women of medium height, l60–172 cm (5 ft 3 in–5 ft 71/2 in)
Size code 6

8

10

12

14

16

bust

76

80

84

88

92

96

waist

56

60

64

68

72

76

low waist (6 cm below waist)

68

72

76

80

84

88

hips

82

86

90

94

98

102

back width

31.4

32.4

33.4

34.4

35.4

36.4

chest

28.8

30

31.2

32.4

33.6

34.8

shoulder

11.5

11.75

12

12.25

12.5

12.75

neck size

34

35

36

37

38

39

dart

5.2

5.8

6.4

7

7.6

8.2

top arm

25.5

26.5

27.5

28.5

29.5

30.5

wrist

14.5

15

15.5

16

16.5

17

ankle

22.5

23

23.5

24

24.5

25

high ankle

19.5

20

20.5

21

21.5

22

nape to waist

39.8

40.2

40.6

41

41.4

41.8

front shoulder to waist

39.8

40.2

40.6

41

41.4

41.8

armscye depth

19.8

20.2

20.6

21

21.4

21.8

waist to knee

57

57.5

58

58.5

59

59.5

waist to hip

19.7

20

20.3

20.6

20.9

21.2

waist to floor

101

102

103

104

105

106

body rise

25.9

26.6

27.3

28

28.7

29.4

sleeve length

57

57.5

58

58.5

59

59.5

sleeve length (jersey)

53

53.5

54

54.5

55

55.5

Body measurement chart for High-street fashion garments: XS, S, M, L, XL

XS = extra small

Size symbol

XS 6

S 8–10

M 12

L 14–16

XL 18

S = small

bust

76

82

88

94

100

M = medium

waist

56

62

68

74

80

L = large

low waist

68

74

80

86

92

XL = extra large

hips

82

88

94

100

106

back width

31.4

32.9

34.4

35.9

37.4

chest

28.8

30.6

32.4

34.2

36

shoulder

11.4

11.8

12.2

12.6

13

neck size

34

35.5

37

38.5

40

dart

5

6

7

8

9

top arm

25.5

27

28.5

30

31.5

wrist

14.6

15.3

16

16.7

17.4

ankle

22.6

23.3

24

24.7

25.4

high ankle

19.6

20.3

21

21.7

22.4

nape to waist

39.8

40.4

41

41.6

42.2

front shoulder to waist

39.8

40.4

41

41.6

42.2

armscye depth

19.8

20.4

21

21.6

22.2

waist to knee

57.1

57.8

58.5

59.2

59.9

waist to hip

19.8

20.2

20.6

21

21.4

waist to floor

101

102.5

104

105.5

107

body rise

26

27

28

29

30

sleeve length

57.1

57.8

58.5

59.2

59.9

sleeve length (jersey)

53.1

53.8

54.5

55.2

56.9

13

Standard body measurements – women’s sizing, 4 cm and 6 cm increments

This chart, constructed for women’s standard sizing, differs from the size chart on page 12; it reflects a mature figure with increased measurements for the waist, hips and also front shoulder to waist measure in the larger sizes. It is based on 4 cm and 6 cm bust increments between the size codes and is compliant with the body measurement size chart given in the standard BS EN 13402-3. Despite variations in body sizes, the general trend is for body size to increase with height. See the special table below for short or tall women.

Women of medium height, 160–172 cm (5 ft 3 in–5 ft 71/2 in) **Size code**

6

8

10

12

14

16

18

20

22

24

26

bust

76

80

84

88

92

96

100

104

110

116

122

waist

60

64

68

72

76

80

84

88

94

100

106

low waist

70

74

78

82

86

90

94

98

104

110

116

hips

84

88

92

96

100

104

108

112

117

122

127

back width

31.4 32.4 33.4 34.4 35.4 36.4 37.4 38.4 39.8 41.2 42.6

chest

28.8 30

31.2 32.4 33.6 34.8 36

37.2 39

40.8 42.6

shoulder

11.5 11.75 12

12.25 12.5 12.75 13

13.25 13.6 13.9 14.2

neck size

34

35

36

37

38

39

40

41

42.4 43.8 45.2

dart

5.2 5.8 6.4 7

7.6 8.2 8.8 9.4 10

10.6 11.2

top arm

24.8 26

27.2 28.4 29.6 30.8 32

33.2 35.2 37.2 39.2

wrist

14.5 15

15.5 16

16.5 17

17.5 18

18.7 19.4 20.1

ankle

22.5 23

23.5 24

24.5 25

25.5 26

26.7 27.4 28.1

high ankle

19.5 20

20.5 21

21.5 22

22.5 23

23.7 24.4 25.1

nape to waist

39.8 40.2 40.6 41

41.4 41.8 42.2 42.6 43

43.4 43.8

front shoulder to waist

39.8 40.2 40.6 41

41.4 42.3 43.2 44.1 45

45.9 46.8

armscye depth

19.8 20.2 20.6 21

21.4 21.8 22.2 22.6 23.2 23.8 24.4

waist to knee

57

57.5 58

58.5 59

59.5 60

60.5 61

61.5 62

waist to hip

19.7 20

20.3 20.6 20.9 21.2 21.5 21.8 22.1 22.4 22.7

waist to floor

101

102

103

104

105

106

107

108

109

110

111

body rise

25.9 26.6 27.3 28

28.7 29.4 30.1 30.8 31.8 32.8 33.8

sleeve length

57

57.5 58

58.5 59

59.5 60

60.25 60.5 60.75 61

sleeve length (jersey)

53

53.5 54

54.5 55

55.5 56

56.25 56.5 56.75 57

Extra measurements (garments)

cuff size shirts

20.5 21

21

21.5 21.5 22

22.5 23

23.5 24

24.5

cuff size, two-piece sleeve

13

13.25 13.5 13.75 14

14.25 14.5 14.75 15

15.25 15.5

trouser bottom width

20.5 21

21.5 22

22.5 23

23.5 24

24.5 25

25.5

jeans bottom width

18

18.5 18.5 19

19

19.5 19.5 20

20

21

21

Tall and short

Short women (cm)

Tall women (cm)

women

(152–l60 cm (5 ft–5 ft 3 in))

(172–180 cm (5 ft 71/2 in–5 ft 101/2 in))

Size charts for tall or

nape to waist

−2

+2

short women have each

scye depth

−0.8

+0.8

of the following vertical

sleeve length

−2.5

+2.5

measurements adjusted

waist to knee

−3

+3

as shown in the size

waist to floor

−5

+5

chart.

body rise

−1

+1

14

Standard body measurements: XS, S, M, L, XL

This size chart reflects the larger average size of women today. The medium size is set at 12–14. This type of chart is used mainly for leisure wear and particularly for garments in mail order catalogues.

The size chart has 8 cm grades between the codes, with a half grade at **XS**.

The **XXS** (extra-extra small) and **XXL** (extra-extra large) sizes are rarely used by the major retailers.

Note 1 A large number of garments made in these sizes are made in jersey fabric, therefore the front shoulder to waist measure remains the same.

Note 2 High-street stores aimed at the younger, fashionable market, generally use a size 12 as their medium size (see page 12).

XS = extra small

S = small

M = medium

L = Large

XL = extra large

Women of medium height l60–172 cm (5 ft 3 in–5 ft 71/2 in) **Size symbol XS**

S

M

L

XL

Bust (control meas. to fit)

74–78

78–86

86–94

94–102

102–110

Approx. UK size codes

6–8

8–10

12–14

16–18

20–22

(half grade)

bust (meas. for drafting)

78

82

90

98

106

waist

62

66

74

82

90

low waist

72

76

84

92

100

hips

86

90

98

106

114

back width

32

33

35

37

39

chest

29.4

30.6

33

35.4

37.8

shoulder

11.7

11.9

12.4

12.9

13.4

neck size

34.5

35.5

37.5

39.5

41.5

dart

5.4

6

7.2

8.4

9.6

top arm

25.4

26.6

29

31.4

33.8

wrist

15

15.5

16.5

17.5

18.5

ankle

23

23.5

24.5

25.5

26.5

high ankle

20

20.5

21.5

22.5

23.5

nape to waist

40

40.4

41.2

42

42.8

front shoulder to waist

40

40.4

41.2

42

42.8

armscye depth

20

20.4

21.2

22

22.8

waist to knee

57.3

57.8

58.8

59.8

60.8

waist to hip

19.8

20.1

20.7

21.3

21.9

waist to floor

101.5

102.5

104.5

106.5

108.5

body rise

26.3

27

28.4

29.8

31.2

sleeve length

57.3

57.8

58.8

59.8

60.8

sleeve length (jersey)

53.3

53.8

54.8

55.8

56.8

15

Constructing blocks

Block patterns

recalled for rapid adaptation and grading, thus

improving efficiency.

A block pattern is a foundation pattern constructed

to fit an average figure. The average measurements

Block patterns – individual figures

of women are obtained by clothing manufacturers

The basic blocks can be drafted to fit individual

from sizing surveys.

figures by using personal measurements instead of

The designer uses a foundation pattern (block) as a

the standard ones listed in the size chart. Methods of basis for making the pattern for a design. They may taking personal measurements and alterations for

introduce style lines, tucks, gathers, pleats or drapes difficult figures are included in Chapter 13.

but still the basic fit of the pattern will conform to the block used. The finished pattern is made up into a **Seam allowances**

calico toile to check the proportions and shape. The

There is no seam allowance included in the blocks.

design is then cut out in fabric and made up. This is These are added after the pattern is constructed. See termed a sample. The size of the sample will depend the section on seam allowances on page 34.

on the niche market of the company. Manufacturers

of high fashion garments will use a smaller size than

Types of basic blocks available in the book

the companies that cater for the general market. If

buyers accept the design and orders are received the

Blocks for form cutting

pattern is then graded into the sizes required.

(1) The close fitting bodice block (page 16).

(2) The easy fitting bodice block (page 18).

(3) The tailored jacket blocks – close or easy fitting **Block patterns – general information** (page 20).

Instructions are given for a wide range of basic

(4) The classic coat blocks – close or easy fitting garments. The blocks include the basic amount of (page 22).

ease required for the function of the block; for

(5) The one-piece sleeve block. The block can be

example, a dress block requires less ease than a

constructed for all the above blocks (page 24).

jacket block. Some blocks offer a further choice of

(6) The two-piece sleeve block. The block can be

ease; for example, the overgarment block can be

constructed for all the above blocks (page 26).

drafted to be close fitting for a formal coat or to be (7) Block modification for sleeveless and waist an easier fitting coat. It is important that the correct shaping (pages 28 and 29).

block is chosen for the design; this not only saves

(8) The dress blocks – one-piece and two-piece

time during adaptation but can affect the final shape.

(page 30).

For example, the close fitting bodice block has a

(9) The shaped kimono blocks (page 62).

wide dart to produce shaping for the bust, this

(10) The tailored skirt block (page 80).

shaping is too acute for many easy fitting designs so (11) The classic tailored trouser block (page 100).

the easy fitting block would provide a better base.

(12) The very close fitting trouser/jeans block

Special note The blocks should be drafted in full (page 106).

scale so that students understand block construction

and become aware of body proportions.

Blocks for flat cutting

(1) The easy fitting trouser block (page 132).

Intermediate blocks

(2) The simple trouser block (page 134).

Some manufacturers construct intermediate blocks;

(3) The simple and very simple skirt blocks

these are basic shapes that are in use continually, for (page 134).

example the kimono block, the ‘A’ line skirt block or (4) The basic shirt block (page 140).

a particular shape on which a range of designs has

(5) The basic flat overgarment blocks (page 142).

been based. The latter is often developed for a

(6) The

flat kimono block (page 142).

particular fashion shape; this type of 'fashion block'

(7) A range of blocks for basic and easy fitting

may only be used for one season. As manufacturers

casual and jersey wear (pages 150 and 156).

change to computer grading systems and to

(8) A range of knitwear blocks (pages 158–160).

computer aided design, intermediate blocks will be

(9) A range of close fitting (body shape) blocks

used increasingly. Their data can be stored and

– for stretch fabrics (pages 164–170).

The close fitting bodice block

This is a close fitting block. If easy fitting styles with **12–13** draw a dotted line 5 cm long and sloping less dart shaping are required use the easy fitting inwards 1 cm. Construct dart 1 cm wide with this line block on page 18.

as centre (make both sides of dart the same length).

2–14 half back width measurement plus 0.5 cm

ease; square up to 15.

Measurements required to draft the block

14–16 half the measurement 14–15.

Measurements from any of the size charts in this

17 midway between 2 and 14; square down with a book (pages 12–14) or personal measurements (see dotted line to point 18 on waistline, and point 19 on page 178) can be applied to the block.

the hipline.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

Front

4–20 one

fifth neck size minus 0.7 cm.

bust

88 cm

shoulder

12.25 cm

4–21 one

fifth neck size minus 0.2 cm; draw in front

nape to waist

41 cm

back width

34.4 cm

neck curve 20–21.

waist to hip

20.6 cm

dart

7 cm

3–22 half chest measurement plus half width of armscye depth

21 cm

chest

32.4 cm

dart; square up.

neck size

37 cm

3–23 half the measurement 3–22; square down with Square down from 0; square halfway across the a dotted line to point 24 on waistline and 25 on

block.

hipline.

0–1 1.5

cm.

26 is the bust point 2.5 cm down from 23; draw a **1–2** armscye depth measurement plus 0.5 cm; line joining 20–26.

square across.

20–27 dart width measurement; draw a line joining **2–3** half bust plus 5 cm [i.e. for 88 cm bust: (88 ÷ 2) 26–27.

+ 5 = 49]. Square up and down; mark this line the

11–28 1.5 cm; square out approx. 10 cm to 29.

centre front line.

27–30 draw a line from 27, shoulder length

3–4 = 0–2

measurement, to touch the line from 28–29.

When using body sizes from the standard body

22–31 one third the measurement 3–21.

measurement chart (page 13) or personal

32 is midway between 14 and 22; square down

measurements (page 178):

with a dotted line to point 33 on the waistline and

Add an extra 0.5 cm for each size up above size 14.

point 34 on the hipline.

Example for size 20: **3–4** = 0–2 plus 1.5 cm.

Draw armscye as shown on diagram, touching

1–5 nape to waist measurement; square across to 6.

points 11, 16, 32, 31, 30; measurement of the curves: **5–7** waist to hip measurement; square across to sizes 6–8

from 14 2.25 cm from 22 1.75 cm

centre front line. Mark point 8 (this gives half hip

sizes 10–14 from 14 2.5 cm

from 22 2 cm

measurement plus 2.5 cm ease).

sizes 16–20 from 14 3 cm

from 22 2.5 cm

sizes 22–26 from 14 3.5 cm

from 22 3 cm

Back

Draw round the outer edge of the shape from 1–21

0–9 one

fifth neck size minus 0.2 cm; draw in back

to complete the block. When shoulder seams are neck curve 1–9.

joined it is essential that the neck and armscyes are **1–10** one

fifth armscye depth measurement minus

smooth curves.

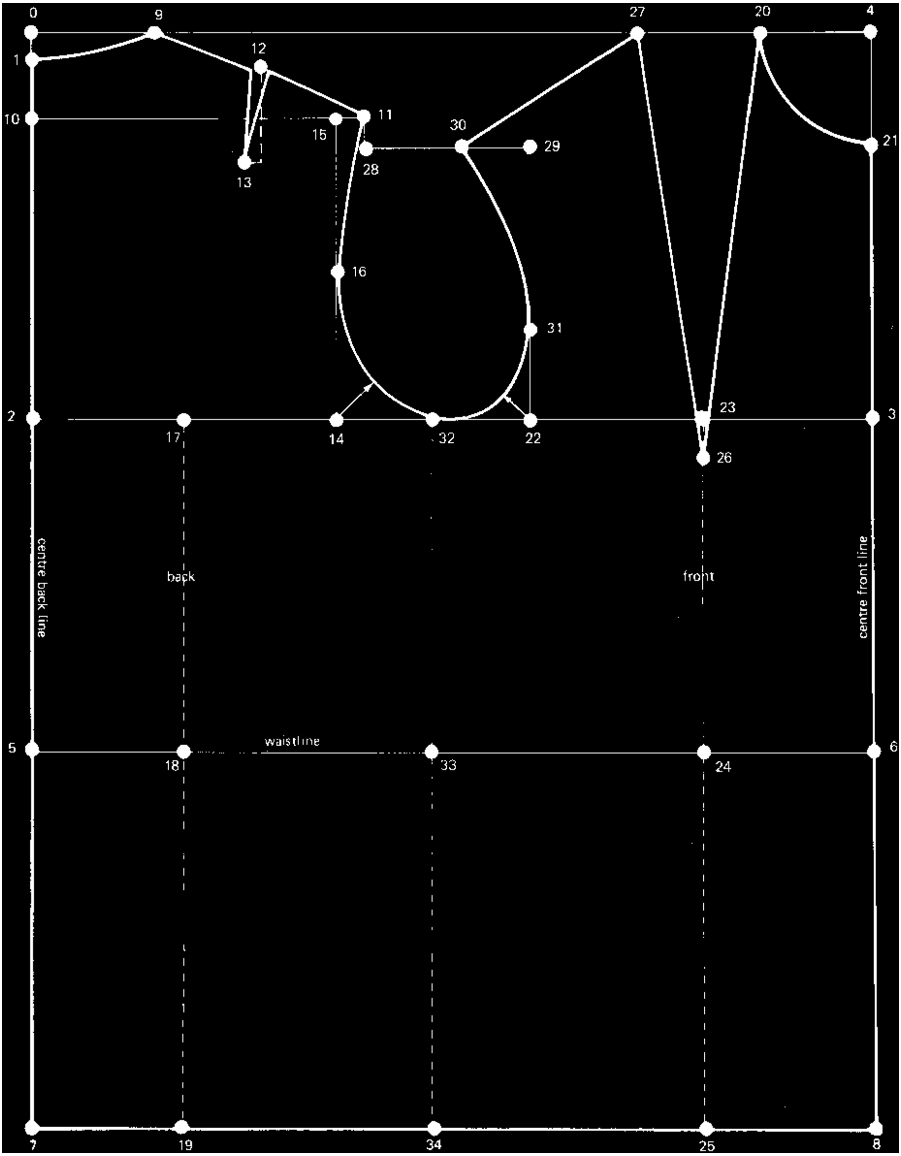
0.7 cm; square halfway across the block.

9–11 shoulder length measurement plus 1 cm; draw **Sleeve** Draft a one-piece sleeve (page 24) or a two-back shoulder line to touch the line from 10.

piece sleeve (page 26) to fit the armscye

12 centre of shoulder line.

measurement.


0
9
27
20
4
1
12
10
15
11
30
29
21
13
28
16
31
2
23
3
17
14
32
22
26
centre back line
back
front
centre front line
5
waistline
6
18
33
24
7
19
34
25
8

17

18

The easy fitting bodice block

For easy fitting dress styles and easy fitting raglan **1–10** one

fifth armscye depth measurement minus

and kimono shapes.

1 cm; square halfway across the block.

9–11 shoulder length measurement plus 1 cm

Measurements required to draft the block

(0.5 cm ease and 0.5 cm extra length). Draw back

shoulder line to touch the line from 10.

Measurements from any of the size charts in this

2–12 half back width measurement plus 1 cm ease; book (pages 12–14) or personal measurements (see square up to 13.

page 178) can be applied to the block.

12–14 half the measurement 12–13.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

Front

bust

88 cm

shoulder

12.25 cm

4–15 one

fifth neck size minus 0.7 cm.

nape to waist

41 cm

back width

34.4 cm

4–16 one

fifth neck size minus 0.2 cm; draw in front waist to hip

20.6 cm

dart

7 cm

neck curve 15–16.

armscye depth

21 cm

chest

32.4 cm

15–17 half the standard dart measurement.

neck size

37 cm

3–18 half chest measurement plus 1 cm, plus half Square down from 0; square halfway across the the measurement 15–17; square up.

block.

18–19 half the measurement 3–16 minus 2 cm.

0–1 1.5

cm.

3–20 half the measurement 3–18; join 15–20 and 17–

1–2 armscye depth measurement plus 2.5 cm;

20 to form a dart.

square across.

11–21 1.5 cm; square out 15 cm to 22.

2–3 half bust plus 7 cm [i.e. for 88 cm bust: (88 ÷ 2) **17–23** draw a line from 17, shoulder length + 7 = 51]. Square up and down; mark this line the measurement plus 0.5 cm, to touch the line from

centre front line.

21–22.

3–4 = 0–2

18–24 half the measurement 12–18; square down to **When using body sizes from the standard body** point 25 on the waistline and 26 on the hipline.

measurement chart (page 13) or personal

Draw armscye as shown on diagram, touching

measurements (page 178):

points 11, 14, 24, 19, 23; measurement of the curves: Add an extra 0.5 cm for each size up above size 14.

sizes

6–8 from

12 2.25

cm

from

18 2

cm

Example for size 20: **3–4** = 0–2 plus 1.5 cm.

sizes

10–14 from 12

2.5 cm from 18 2.25 cm

1–5 nape to waist measurement; square across to 6.

sizes

16–20 from 12

3 cm

from 18 2.75 cm

5–7 waist to hip measurement; square across to 8.

sizes

22–26 from 12

3.5 cm from 18 3.25 cm

Back

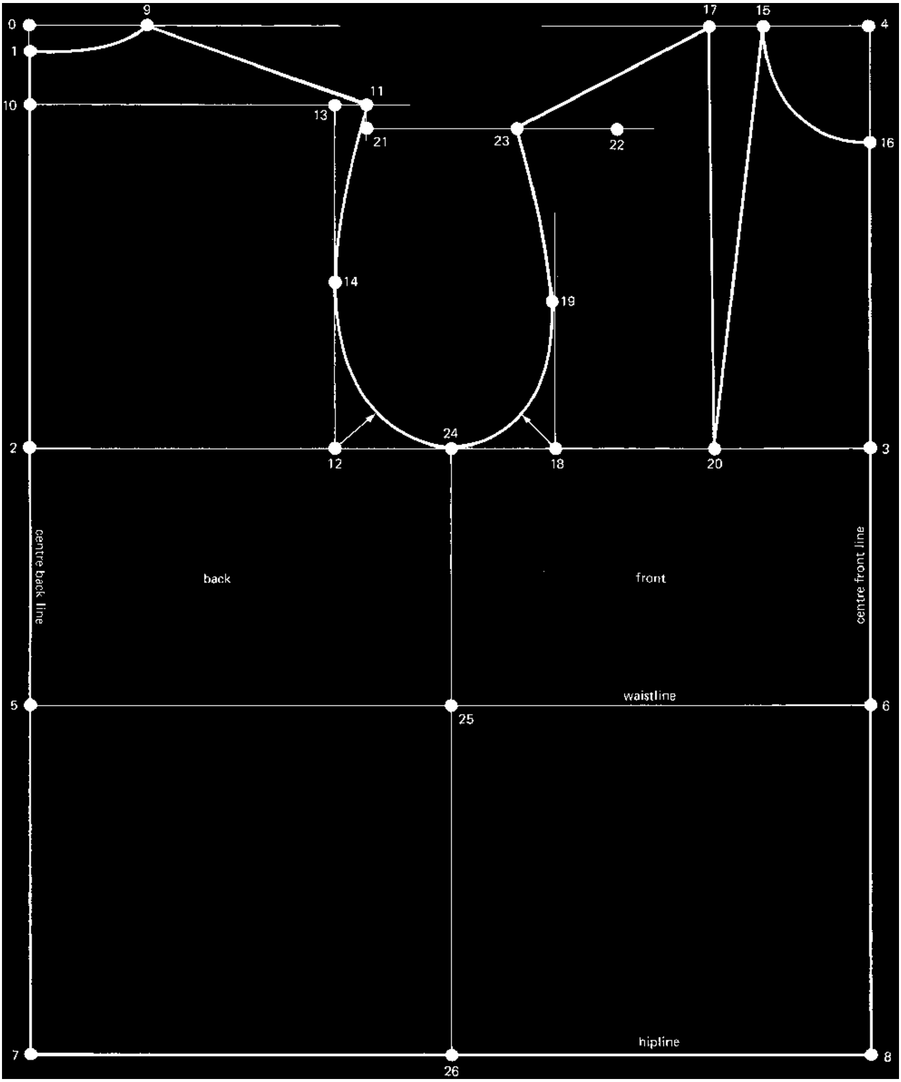
Sleeve Draft a one-piece sleeve (page 24) or a two-0–9 one

fifth neck size minus 0.2 cm; draw in back

piece sleeve (page 26) to fit the armscye

neck curve 1–9.

measurement.


0
9
17
15
4
1
11
10
13
21
23
22
16
14
19
2
24
12
18
20
3
centre back line
back
front
centre front line
5
waistline
25
6
7
hipline
26
8

19

20

The tailored jacket blocks

For jackets with collars and revers. Close fitting and **14–17** = 0–2

easy fitting shapes.

When using body sizes from the standard body

measurement chart (page 13) or personal

Measurements required to draft the block

measurements (page 178):

Add an extra 0.5 cm for each size up above size 14.

Measurements from any of the size charts in this

Example for size 20: **14–17** = 0–2 plus 1.5 cm.

book (pages 12–14) or personal measurements (see

17–18 one

fifth neck size plus 1 cm (2 cm).

page 178) can be applied to the block.

17–19 one

fifth neck size; draw in neck curve. Join

A size 12 from the size chart on page 12 (for fashion point 18 to point 10.

garments) is used for this illustrated example.

18–20 shoulder measurement plus dart allowance plus 0.5 cm (plus reduced dart allowance plus 2 cm).

bust

88 cm

shoulder

12.25 cm

18–21 one third shoulder measurement.

nape to waist

41 cm

back width

34.4 cm

21–22 dart measurement (half dart measurement).

waist to hip

20.6 cm

dart

7 cm

14–23 half chest plus half the measurement 21–22

armscye depth

21 cm

chest

32.4 cm

plus 1 cm (3.5 cm). Square up.

neck size

37 cm

23–24 one third the measurement 14–19.

23–25 half the measurement 14–23; square down to **Important note** The easy fitting block has a 26 and 27 (square up 2 cm for bust point 25).

reduced dart for less bust shaping. Reduce the

Join 21–25 and 22–25; ensure that the dart lines are

standard dart measurement by half. The instructions

the same length. Re-mark point 22.

for the easy fitting block are shown in brackets.

20–28 2 cm; join 28–22 with a curve.

23–29 half the measurement 8–23; square down to Square down from 0; square halfway across the 30 and 31.

block.

Draw armscye as shown in diagram touching points

0–1 1.75

cm.

13, 9, 29, 24, 28; measurement of the curves:

1–2 neck to waist; square across.

from 8

from 23

1–3 finished length; square across.

sizes

6–8

2 cm (2.75 cm)

1.5 cm (2.5 cm)

2–4 waist to hip; square across.

sizes

10–14

2.25 cm (3 cm)

1.75 cm (2.75 cm)

1–5 armscye depth plus 3 cm (5 cm); square across.

sizes

16–20

2.75 cm (3.5 cm)

2.25 cm (3.25 cm)

1–6 half the measurement 1–5; square out.

sizes

22–26

3.25 cm (4 cm)

2.75 cm (3.75 cm)

1–7 quarter armscye depth measurement; square out.

Sleeve Draft a two-piece sleeve (page 26).

5–8 half back width plus 1 cm (3 cm); square up to 9

and 10.

Classic front edge shaping

10–11 2 cm; square out.

0–12 one

fifth neck size (plus 0.3 cm); draw neck

Add required button stand.

curve.

Mark points 32 and 33 on waistline and hemline.

12–13 shoulder length plus 1.5 cm (3 cm). These **33–34** 1 cm; join 31–34 with a curve.

measurements include shoulder ease of 0.5 cm.

32–35 one third the measurement 32–34.

5–14 half bust plus 8 cm (12 cm); square up, square **34–36** one fifth the measurement 31–34; draw in

down to 15 and 16.

front curve.

Shaping the blocks

The design of the garment will determine the

Semi-fitted shaping ('men's style')

shaping of the block. Two examples are given:

2–37 1.5

cm.

37–38 1 cm (1.5 cm). **3–39** 0.5

cm

Standard shaping (fitted designs)

(1.5 cm). Draw back seam line 6, 38, 39.

8–40 quarter armscye depth minus 1 cm; square **2–37** 1.5 cm; draw a curved line from 30–37.

across to 41 on armscye line; square down to 42.

37–38 1.5

cm.

3–39 0.5 cm (1 cm). Draw back seam

8–43 1.5 cm (2 cm); square down to 44 and 45.

line 6, 38, 39.

45–46 2.5 cm; draw in back seam line through

Construct back and front darts as shown; back dart

points 41, 44, 46 (45) and 41, 42, 45 (46).

is midway between 5 and 8. (Extend back and front

29–47 one third measurement 23–29; square down darts to hemline shaping in 2 cm at each hem point.) to 48 on waistline and 49 12 cm below waistline.

Shape back side seam: shape in back waistline 1.5 cm

Draw in a 1 cm (2 cm) dart on this line.

(2 cm); add 1.5 cm to hemline (0.5 cm).

25–50 3

cm.

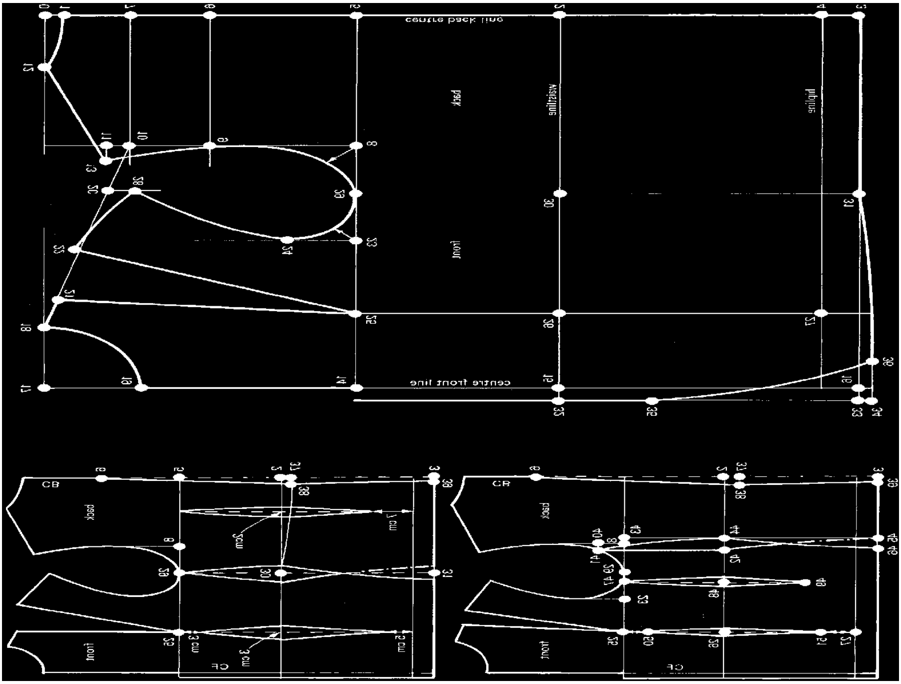
27–51 5 cm. Draw in 1 cm (2 cm) dart

Shape front side seam: shape in front waistline 2 cm

on this line (continue the 2 cm shaping to the

(2.5 cm); add 1 cm to hemline (0.5 cm).

hemline).


centre back line
back
waistline
hipline
front
centre front line
CB
CF
1 cm
2 cm
3 cm

21

22

The classic coat blocks

For close fitting coats and easy fitting overgarments.

2–10 half the measurement 1–2; square out.

1–11 quarter armscye depth measurement; square

Measurements required to draft the block

out.

Measurements from any of the size charts in this

2–12 half back width plus 1.5 cm (4 cm); square up book (pages 12–14) or personal measurements (see to 13 and 14.

page 178) can be applied to the block.

14–15 2 cm; square out.

A size 12 from the size chart on page 12 (for fashion **9–16** shoulder measurement plus 2 cm (3.5 cm).

garments) is used for this illustrated example.

These measurements include shoulder ease of 0.5 cm.

bust

88 cm

shoulder

12.25 cm

Front

nape to waist

41 cm

back width

34.4 cm

waist to hip

20.6 cm

dart

7 cm

4–17 one

fifth neck size plus 0.2 cm (0.6 cm).

armscye depth

21 cm

chest

32.4 cm

4–18 one

fifth neck size plus 0.3 cm; draw in front

neck size

37 cm

neck curve 17–18.

17–19 dart measurement (half dart measurement).

Important note The easy fitting block has a Joint point 19 to point 14.

reduced dart for less bust shaping. Reduce the

19–20 the measurement 9–16 minus 1 cm.

standard dart measurement by half. The instructions

20–21 1.5 cm (1 cm); join 19–21 with a slight curve.

for the easy fitting block are shown in brackets.

3–22 half chest plus half the measurement 17–19

plus 1 cm (4 cm). Square up.

Square down from 0; square halfway across the

22–23 one third the measurement 3–18.

block.

22–24 half the measurement 3–22 (square up 3 cm **0–1** 2

cm.

to mark bust point). Join 17–24 and 19–24 to form

1–2 armscye depth plus 4 cm (6 cm); square across.

dart.

22–25

2–3 half bust plus 10 cm (15 cm) [i.e. for 88 cm bust; half the measurement 12–22; square down to (88 ÷ 2) + 10 = 54 cm]. Square up and down, mark

26 and 27.

this line the centre front line.

Draw armscye as shown in diagram touching points

3–4 = 0–2

16, 13, 25, 23, 21; measurement of the curves:

When using body sizes from the standard body

from 12

from 22

measurement chart (page 13) or personal

sizes

6–8

2.5 cm (3 cm)

2 cm (2.5 cm)

measurements (page 178):

sizes

10–14

2.75 cm (3.25 cm)

2.25 cm (2.75 cm)

Add an extra 0.5 cm for each size up above size 14.

sizes

16–20

3.25 cm (3.75 cm)

2.75 cm (3.25 cm)

Example for size 20: **3–4** = 0–2 plus 1.5 cm.

sizes

22–26

3.75 cm (4.35 cm)

3.25 cm (3.75 cm)

1–5 nape to waist measurement plus 0.5 cm; square across to 6.

Note For simple shapes (i.e. kimono block) for **5–7** waist to hip measurement; square across to 8.

mass production, equalise the side seam by making:

2–25 half the measurement 2–3; square down to point 26 on the waistline and 27 on the hipline.

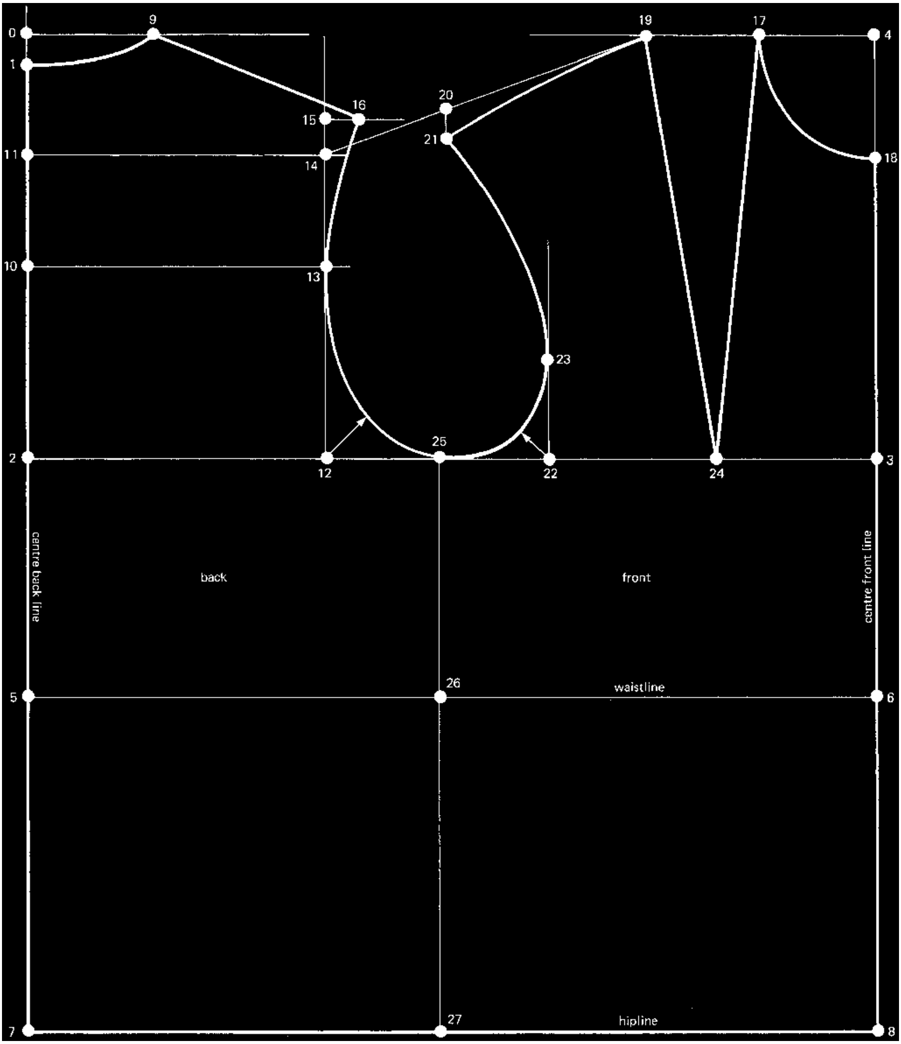
Back

0–9 one

fifth neck size plus 0.4 cm (0.8 cm); draw in

Sleeve Draft the one-piece sleeve (page 24) or a back neck curve 1–9.

two-piece sleeve (page 26) to fit armscye.


0
9
19
17
4
1
16
20
15
21
11
14
18
10
13
23
25
2
12
22
24
3
centre back line
back
front
centre front line
5
26
waistline
6
7
27
hipline
8

23

24

The one-piece sleeve block

Measurements required to draft the block

9–12 the measurement of the curve 4–10 less 0.3 cm; join with a line.

Measurements from any of the size charts in this

Square down from 7.

book (pages 12–14) or personal measurements (see

7–13 sleeve length to wrist; square across both page 178) can be applied to the block.

ways for wrist line.

A size 12 from the size chart on page 12 (for fashion Square down from 11 and 12 to wrist line to marl garments) is used for this illustrated example.

points 14 and 15.

armscye measure

the

armscye

Draw in outline of sleeve head:

sleeve length 58.5 cm

12–9 hollow the curve 0.75 cm.

9–7 raise the curve 1 cm.

For coats and easy fitting jackets add 1.5 cm to sleeve **7–5** raise the curve 2 cm at x (one third of distance length.

7–5).

5–11 hollow the curve 1 cm.

Draw a perpendicular line from the armscye line at 1

touching the front armscye.

Draw in line of wrist:

1–2 one third armscye measurement (sizes 8–14

14–13 lower the curve 1 cm.

minus 0.5 cm, sizes 16–22 minus 0.3 cm); square

13–15 hollow the curve 1 cm.

across.

For slight sleeve shaping narrow sleeve at wrist

3 midway between 1 and 2; square across to 4 on 3–5 cm.

the back scye line; mark balance point; continue

The elbow line is on the waistline of the block.

line.

1–5 half the measurement 1–3; mark front balance **Note** It is important that all 'curved point as shown. Mark adjacent armscye point 5A

measurements' are measured very accurately

with balance point.

along the curved line. The sleeve is based on the

6 front shoulder point.

body blocks to ensure a perfect fit at the armscye.

5–7 the measurement of the curve 5A–6 plus 1 cm (plus 1.25 cm sizes 16–20; plus 1.5 cm sizes 22–26); **Ease at the sleeve head**

join with a line. Mark top sleeve balance point at 7.

The ease in the sleeve head is drafted to give a full **8** back shoulder point.

rounded appearance to the sleeve head. For a flatter **7–9** the measurement of the curve 4–8 plus 1 cm insertion reduce the ease allowance in the draft; see (plus 1.25 cm sizes 16–20; plus 1.5 cm sizes 22–26); notes 5–7 and 7–9.

join with a line. Mark back sleeve balance point

at 9.

Padded shoulders

10 the underarm point on the side seam; mark with All the blocks and sleeves have no allowance a balance point.

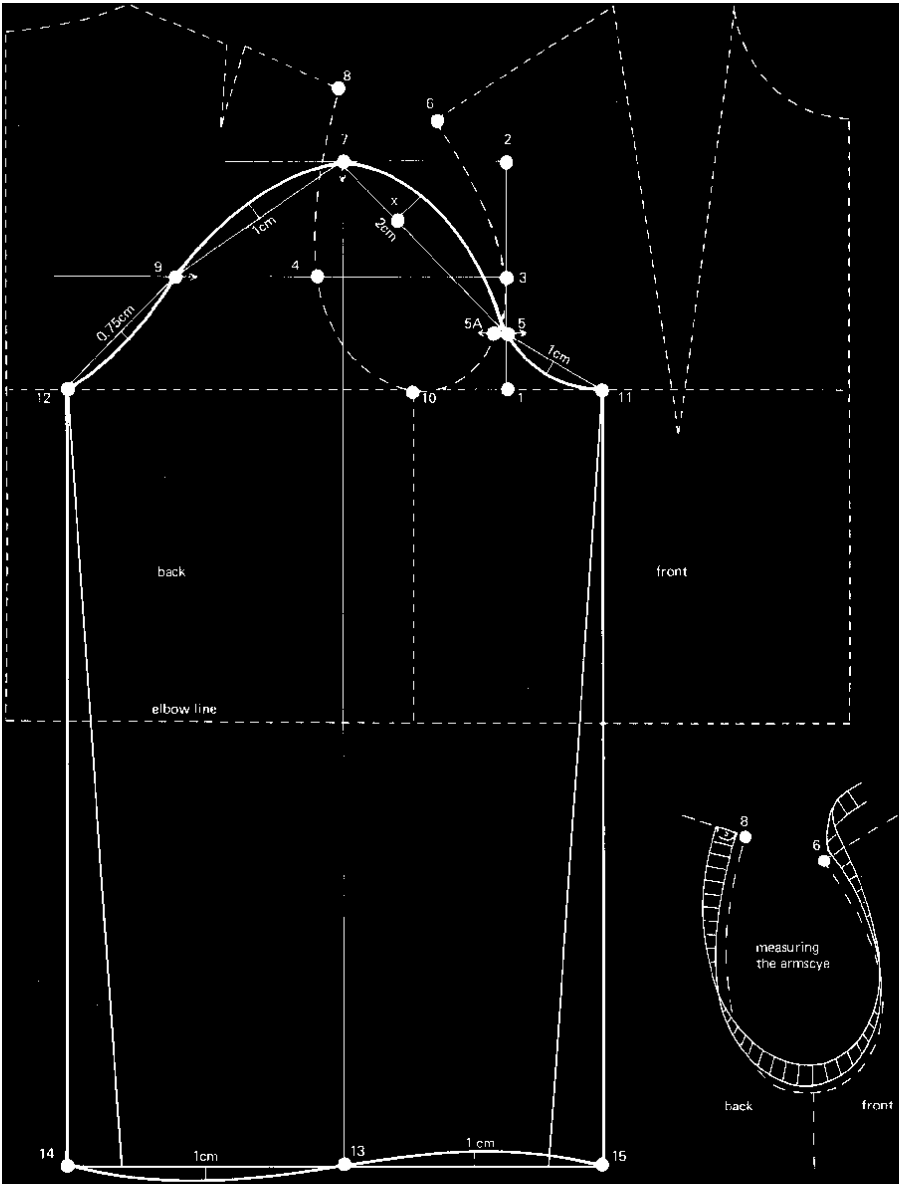
included in the draft for shoulder pads. If pads are

5–11 the measurement of the curve 5A–10 less

required refer to the section ‘Padded shoulders’ (ref.

0.3 cm; join with a line.

8 page 50).


8
6
7
2
x
1cm
2cm
9
4
3
0.75cm
5A
5
1cm
12
10
1
11
back
front
elbow line
14
1cm
13
1 cm
15
8
6
measuring
the armscye
back
front

25

26

The two-piece sleeve block

Measurements required to draft the block

0–6 the measurement A–E on body block.

0–7 2 cm; square across both ways.

Measurements from any of the size charts in this

7–8 and **7–9** 2 cm; square down from 8 and 9.

book (pages 12–14) or personal measurements (see

1–10 sleeve length to wrist; square across to 11 and page 178) can be applied to the block.

12.

A size 12 from the size chart on page 12 (for fashion **10–13** 3 cm; square across.

garments) is used for this illustrated example.

10–14 cuff size for two-piece sleeve; join 10–14 and 10–11.

armscye measure

the

armscye

7–15 half the measurement 7–10; square across sleeve length to wrist 58.5 cm (elbow line). Curve inner sleeve seams inwards 2 cm

cuff size

13.75 cm

at elbow line (1 cm on easy fitting sleeves).

Draw in sleeve head.

For coats and easy fitting jackets add 1.5 cm to sleeve **5–4** raise the curve 1 cm.

length and 1 cm to cuff size.

Mark point 16; 4–16 is one third the measurement

4–3.

Mark basic points on body block.

4–3 raise the curve at 16 2 cm; join 3–8 with a curve.

Mark point A at underarm, B and C at shoulder

6–17 the measurement A–BP on body block,

points.

measured straight, plus 0.5 cm.

Mark points D and E at base of lines which are

Join 6–17, draw a curve hollowed 1.5 cm.

squared up to touch the armscye curves.

Join 6–9 with a slight curve.

Join 17–14 and 5–14.

Sleeve

Mark points 18 and 19 on elbow line.

Square up and across from 0.

Curve outer sleeve seams outwards 2.3 cm (2.5 cm

0–1 one third armscye measurement; square across.

sizes 16–20; 2.7 cm sizes 22–26) at 18 and 19.

1–2 one third measurement 0–1 plus 1 cm; square across.

Note It is important that all ‘curved measurements’

0–3 quarter the measurement 0–1.

are measured very accurately along the curved lines

with the tape upright (see diagram).

On body block E–F equals measurement 0–3 on sleeve block.

Ease at the sleeve head

Square out to FP (front pitch point) on armscye.

The ease in the sleeve head is drafted to give a full D–BP (back pitch point) equals the measurement 0–2

rounded appearance to the sleeve head. For a flatter on sleeve block.

insertion reduce the ease allowance in the draft; see notes 3–4 and 4–5.

3–4 the measurement of the curve C–FP plus 1 cm (plus 1.25 cm sizes 16–22; plus 1.5 cm sizes 24–30).

Padded shoulders

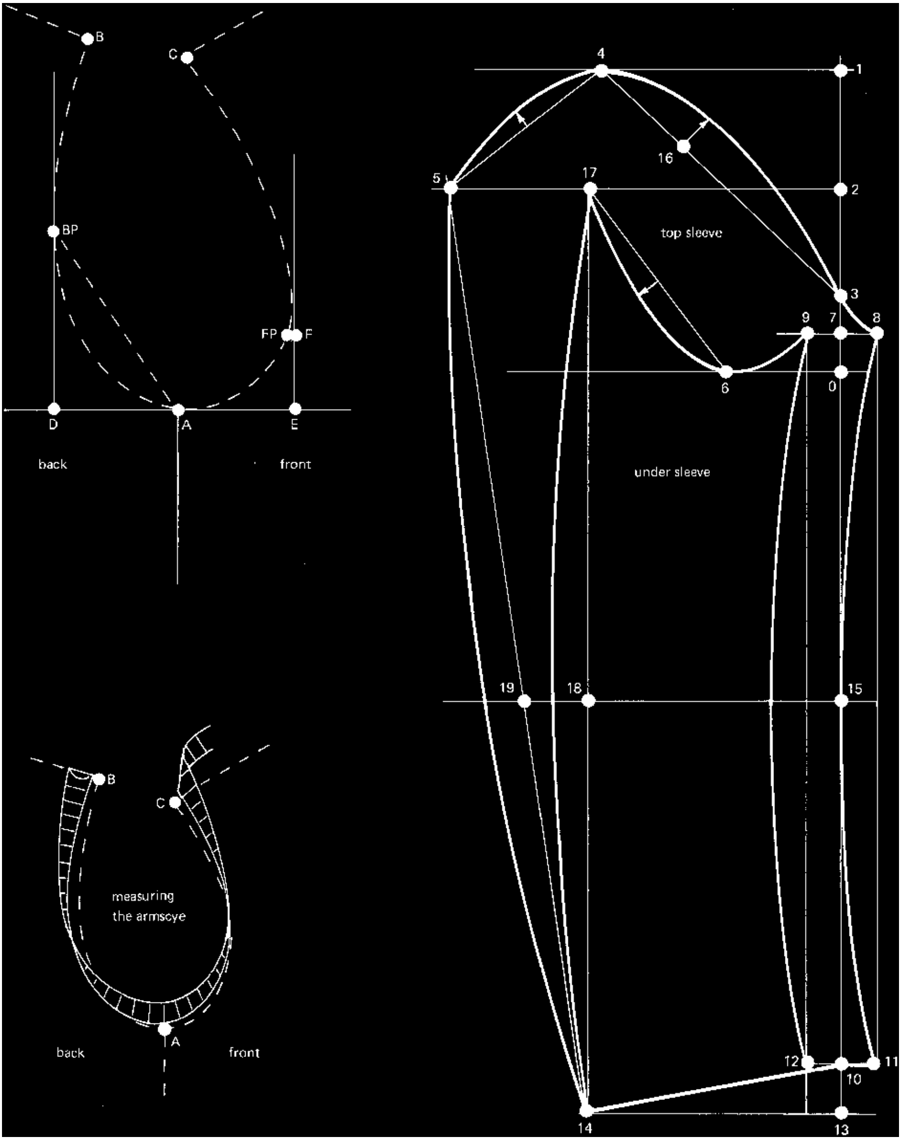
Join 3–4.

All the blocks and sleeves have no allowance

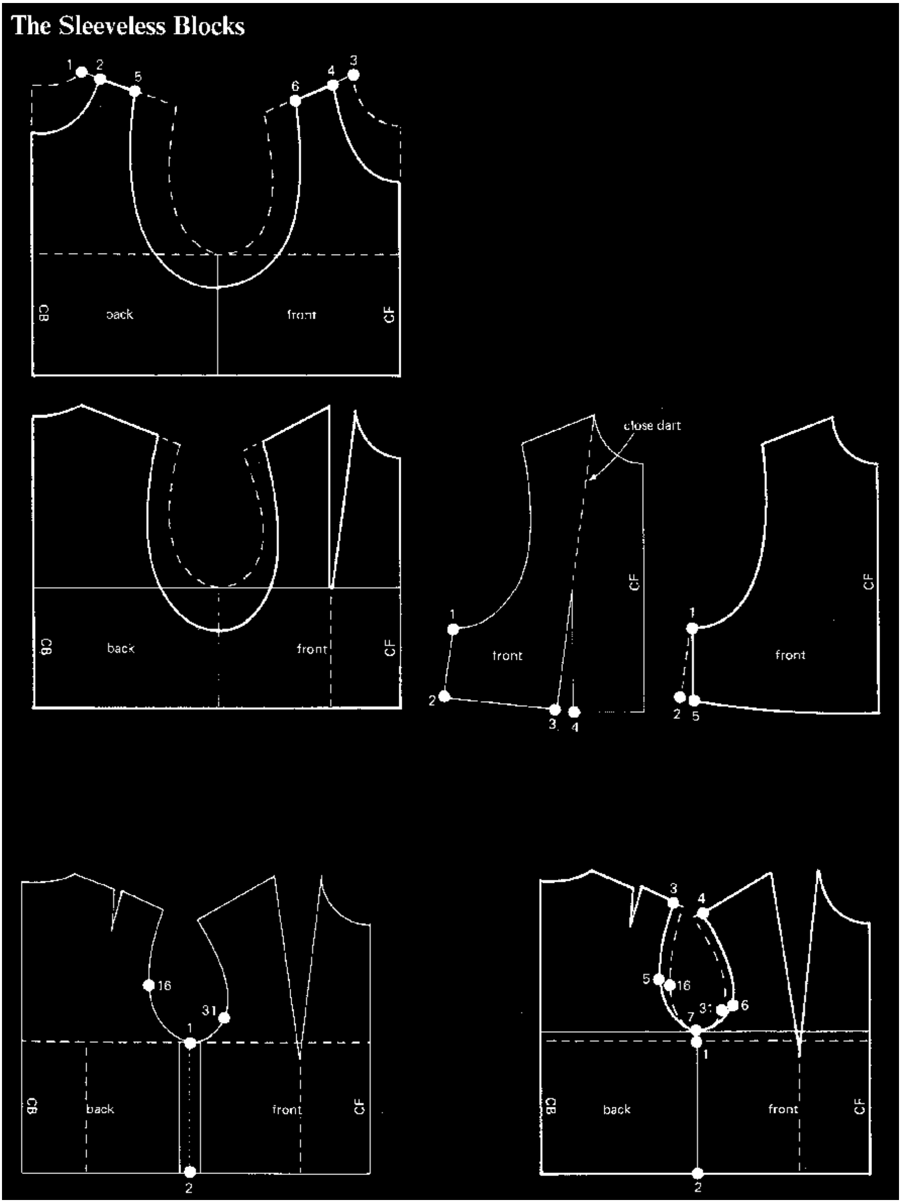
4–5 the measurement of the curve B–BP plus 0.8 cm included in the draft for shoulder pads. If pads are (plus 1 cm sizes 16–22; plus 1.2 cm sizes 24–30). Join required refer to the section ‘Padded shoulders’ (ref.

4–5.

8 page 50).


B
C
BP
FP
F
D
A
E
back
front
B
C
measuring
the armscye
A
back
front
4
1
16
5
17
2
top sleeve
3
9
7
8
6
0
under sleeve
19
18
15
12
10
11
14
13

27


The Sleeveless Blocks
1
2
5
6
4
3
CB
back
front
CF
CB
back
front
CF
close dart
1
front
CF
2
3
4
1
front
CF
2
5
16
31
1
CB
back
front
CF
2
3
4
5
16
7
31
6
1
CB
back
front
CF
2

28

The sleeveless blocks

It is a simple matter to draw new armscye shapes onto a block or adapted pattern. If a wider finished shape is required, open the underarm seam the required amount before starting the armscye adaptation.

1 Simple

singlet

shapes

Use the dartless block adaptation shown below for woven fabrics, the knitwear or tee shirt blocks for jersey fabrics.

Make 1–2 and 3–4 the same measurement; draw in neck.

Make 2–5 and 4–6 the same measurement; draw in

armscye.

2 Dart

transfer

Trace block required with reduced bust darting.

If lowered armscye is required draw in armscye shape.

Drop a vertical line from base of bust dart.

Cut up line; close bust dart. Mark points 1, 2, 3, 4.

2–5 is the measurement 3–4. Draw new side seam 1–5.

3 The close fitting sleeveless block

Draw new armscye depth line 1 cm above original

line.

Trace the close fitting bodice block. Mark points 16

Mark points 3 and 4 1 cm in from shoulder edge.

and 31. Mark side seam 1–2.

Mark points 5 and 6 1 cm in and 1 cm up from 16

Draw new side seam lines 1.5 cm each side of 1–2.

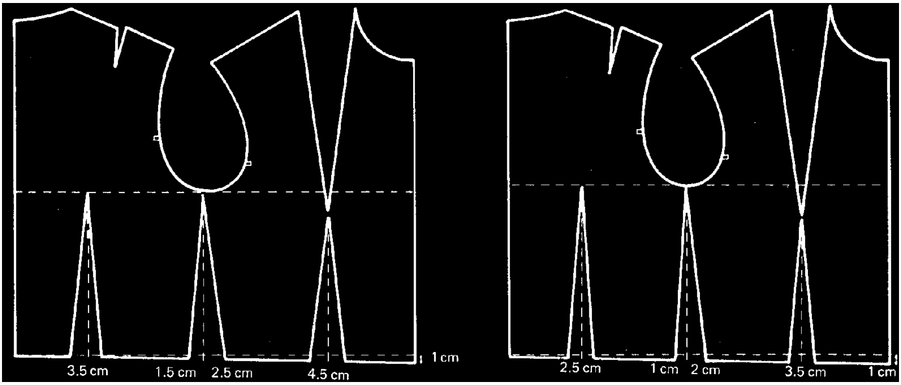
and 31.

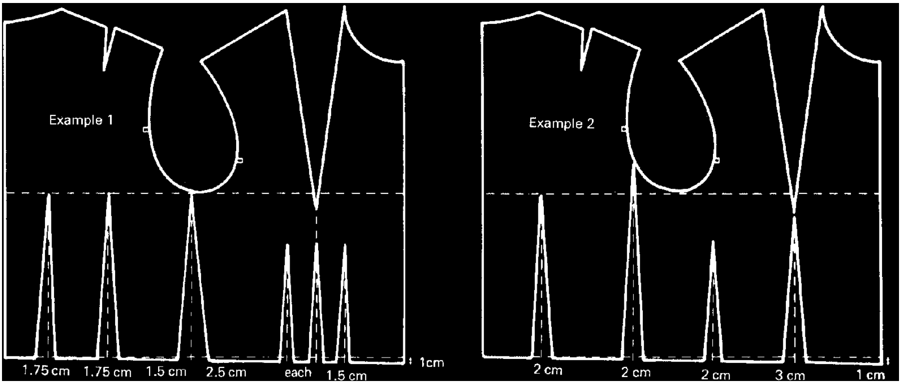
Cut round bodice pieces; rejoin the side seam 1–2.

1–7 1

cm.

Draw new armscye using points 3, 5, 7, 6, 4.


3.5 cm
1.5 cm
2.5 cm
4.5 cm
1 cm
2.5 cm
1 cm
2 cm
3.5 cm
1 cm


Example 1
1.75cm
1.75 cm
1.5 cm
2.5 cm
each
1.5 cm
1cm
Example 2
2 cm
2 cm
2 cm
3 cm
1 cm

29

Shaping the waist

All waisted garments require front waist dropped 1 cm (1.5 cm–2 cm large sizes); join to back with curved line.

Classic waist shaping

The close fitting sleeveless block

Shaping the waist of the close fitting block requires The sleeveless block has already been reduced by half the waist measurement plus 3 cm ease. This

3 cm. This means 9 cm shaping (all sizes). For classic means 12 cm shaping (all sizes). Shape block on the waist shaping follow the dotted lines: 2.5 cm at back dotted lines: 3.5 cm at back dart, 1.5 cm at back

side dart, 1 cm at back side seam, 2 cm at front side seam, seam, 2.5 cm at front side seam, 4.5 cm at front dart.

3.5 cm at front dart.

Examples of alternative waist shaping

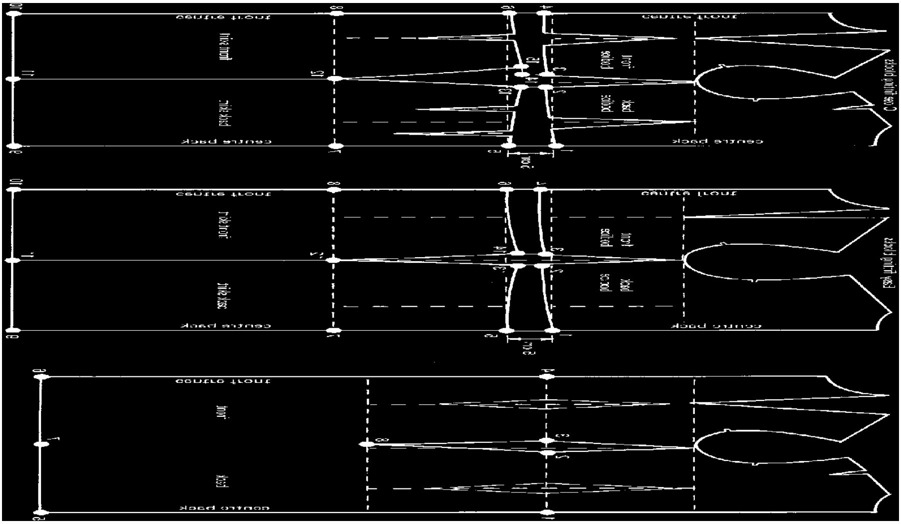
Example 1 A design showing the shaping of 12 cm distributed into more darts.

The waist shaping can be distributed in different

ways depending on the design or block used.

Example 2 Design showing the elimination of the The shaping can be reduced if less fitted styles are side seam and an easy fitting shape. Waist reduced required.

only 9 cm.


centre front
centre back
centre front
centre back
centre front
centre back

The dress blocks

30

One-piece dress blocks

Two-piece dress blocks

Easy fitting blocks

Join 5–13, 13–12, 6–14, 14–12 with curved lines.

Dress blocks without waist shaping

Trace chosen bodice block. Lower front waist

Extend block to finished length; square across.

line 1 cm. Draw classic waist shaping on close

Close fitting blocks

fitting block, side seam shaping on other blocks.

Close fitting dress block

14–15 2.5 cm; join 5–13, 13–12, 6–15, 15–12

Mark 1, 2, 3, 4; square down from 1 and 4.

Trace close fitting bodice block to hipline;

with curved lines.

1–5 5 cm; square across to 6.

draw classic waist shaping. Mark 1, 2, 3, 4.

Back darts: construct two darts 1.75 cm wide,

5–7 waist to hip; square across to 8.

Square down from 1 and 4 to 5 and 6. Square

12 cm and 14 cm long. Place darts each side of

5–9 finished length; square across to 10. 11 is

across. 7 is midway 5–6; square up to 8.

bodice dart squared down from line 5–13.

midway 9–10; square up to 12. 13 and 14 are

Join 3–8 and 2–8 with curved lines.

Front dart: construct a dart 2 cm wide and

below 2 and 3 and 1.25 cm up from line 5–6.

Extend back and front darts 13 cm.

10 cm long directly below bodice dart.

31

PART ONE: CLASSIC FORM CUTTING

2 From block to pattern

From block to pattern

32

Seam allowances

34

Pattern instructions

35

Fabric grain

36

Lays 36

Dress stands and toiles

1 When a curved line meets a straight line it must run into it smoothly.

It is possible to cut out patterns without a dress

2 Neck and armscye curves must be perfect. Make stand. Many people who sew for pleasure do not sure all design curves are beautifully shaped,

have one. However, they are a very valuable piece

especially where they meet a fold line. French curves of equipment. Students should combine flat pattern are very useful for drawing curved lines.

cutting with work on the dress stand. Design ideas

3 Pattern pieces that are ‘cut and spread’ can give that look acceptable on a flat piece of paper can look an uneven outline. Draw it as a smooth, even line.

ugly and distorted on the rounded form of the body

4 When a dart is machined the base of the dart is or the dress stand. If a dress stand is not available, drawn upwards; this creates a 'V' shape.

you can use the figure of a colleague or your own

Compensate for this by shaping the base of the dart

body. The making of calico toiles is essential when

downwards on the seam (4).

designing advanced styles. A design toile is the

pattern cut out in calico and made up to check and

Close fitting bodice – darts and seams

perfect the design. Drapes and intricate cuts can be

worked on the stand before the toile is sewn.

When the working pattern is completed, the darts

When the toile is made up, it should be seen on a

and seams of a close fitting bodice can be shaped to moving figure to consider the proportions and to give a better fit. However, in most mass production

ensure the correct amount of ease has been allowed.

patterns, the seam and dart lines remain straight.

5 To avoid sharp points at the bust shorten the

The pattern

length of the bust dart and front waist dart by 2 cm.

6 and **7** To achieve a fitted shape around the Three different types of pattern are used by diaphragm, curve the side seam slightly inwards (6) designers when drafting patterns. It is necessary to

and the bust and waist darts slightly outwards (7

know the difference.

and 8). This method can be used on the side seam of

The block pattern is the basic pattern that is used the sleeve (8).

as a basis for all adaptations. The block pattern is

Do not use this method on skirt darts.

traced or 'wheeled' onto pattern paper to produce

Do not overshape (maximum 0.3 cm darts, 0.5 cm side the working pattern.

and sleeve seams).

The working pattern is used for marking out the basic style lines and design features (e.g. pockets, collars, buttonhole placings). Pattern sections are

Principles of pattern making

traced off and may be further adapted. Complicated

The following chapters cover pattern adaptations,

styles may need a number of trials at this stage.

manipulating the block to make different designs.

The final pattern is the pattern from which the Basic principles are common to many pattern pieces; garment will be cut. It must be clearly marked with

these should be considered before one begins.

all the information required for making up the

Seam lines A pattern piece can be cut across

garment.

vertically, horizontally, diagonally, with curved lines Before commencing any adaptation the following *etc.* When the sections are joined the pattern piece

points should be considered:

will have a seam, but the basic shape remains the

(1) Choose the correct blocks (e.g. if a baggy trouser same. Dart shaping can be moved to seam lines so style is required, use an easy fitting trouser

that the shaping remains but the dart disappears

block).

(ref. 2 page 82).

(2) Decide the length; lengthen or shorten the block.

Shape A garment can fit closely to the figure, be (3) Decide if any easy fitting armscye is required semi-fitting or easy fitting in shape. This is achieved (see lowered armscye ref. 23 page 56).

by using the blocks with or without shaping.

Some examples of changes of pattern shape are:

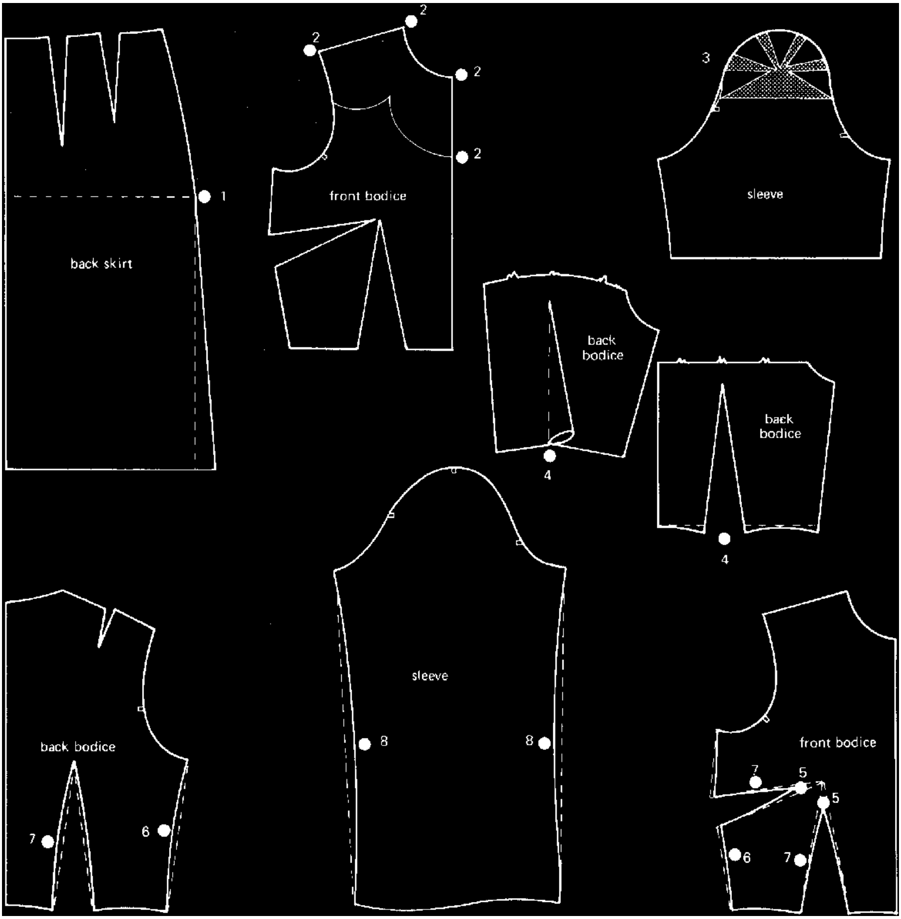
Good lines and curves

widening the outline . . . inserting extra body ease; Refer to the diagrams on the page opposite.

hidden shapes . . . adding pleats and godets; When drafting patterns it is essential that lines puff and bell shapes . . . adding width to the design and curves are smooth, as any uneven lines will by tucks or gathers;

show as unsightly bumps on the finished garment.

cone shapes . . . widening the hem line only.


2
2
2
2
3
1
back skirt
front bodice
sleeve
back
bodice
4
back
bodice
4
sleeve
back bodice
8
8
front bodice
7
5
5
7
6
6
7

33

Adding pieces when adding pockets, peplums,

Beautiful shapes it is always necessary to have good panels, flaps, etc., consider carefully the balance of lines and shapes. When cutting intricate patterns small the design.

amounts of the basic block may be lost or small parts **Body movement** in more advanced pattern added. How much one can do this depends on one's

cutting parts of bodices are added to sleeves. When

skill and experience. That is why it is so difficult to cut working these designs always be aware that the the subtle shapes achieved by our top designers.

body must be able to move. It is only on wide,

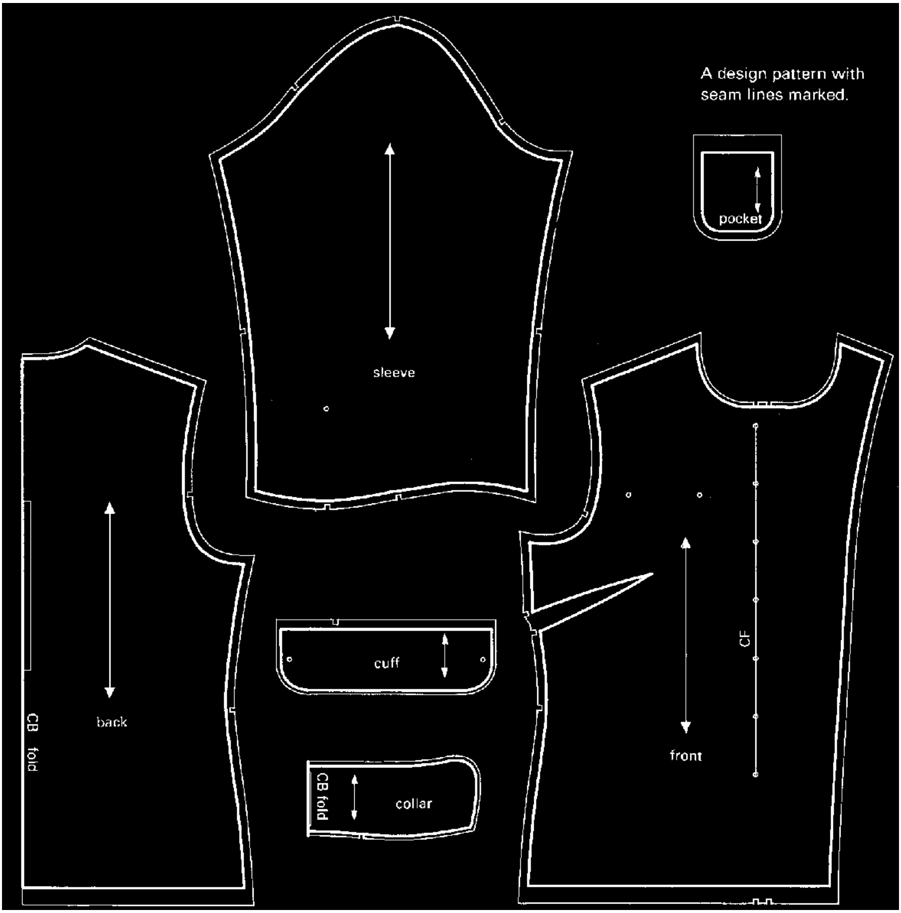
Cutting individual garments gives designers much

full garments that very simple shapes can be

more freedom; they are not restricted by the price

used.

limits and the fabrics used in mass production.


A design pattern with seam lines marked.

sleeve
pocket
back
CB fold
cuff
collar
CB fold
front
CF

Seam allowances

Manufacturers require finished patterns to have

Fabrics that fray easily will require wider turnings seam allowances added. Some require their

especially around facings and collars.

designers to adapt patterns from blocks that already

The width of the seam allowance must be marked

include the seam allowance. This is a difficult task on the pattern by lines or notches.

for a beginner. It is better for students to work with No seam allowance is required on a fold line.

nett patterns (those without seam allowance);

It is important that seam allowances added to the

especially when drafting complicated styles. The

pattern are accurate and clearly marked.

seam allowance can be added afterwards.

Seam allowance widths vary with the type of

Toile patterns

manufacture and garment. The following examples

It is not necessary to add seam allowances at this

are a general guide.

stage, they can be marked directly on the calico.

Basic seams *e.g.* side seams, style seams . . . 1 to 1.5 cm.

Industrial patterns

Enclosed seams *e.g.* collars, cuffs . . . 0.5 cm.

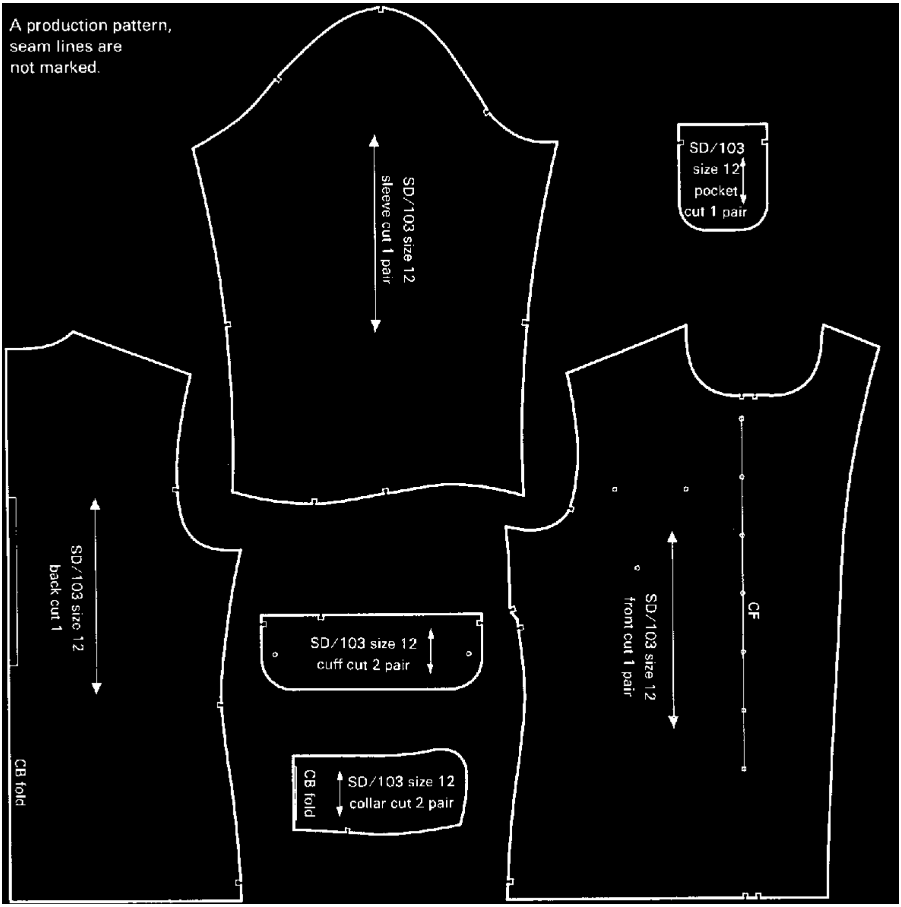
Hems depth depends on shape and finish . . . 1 to The seam lines are not marked on these patterns. The 5 cm.

seam allowance is usually stated in the making up

Decorative seams usually require more seam specification and only varying seam allowances will

allowance.

be marked by notches.



A production pattern, seam lines are not marked.

SD/103 size 12 sleeve cut 1 pair
SD/103 size 12 pocket cut 1 pair
SD/103 size 12 back cut 1
CB fold
SD/103 size 12 cuff cut 2 pair
CB fold
SD/103 size 12 collar cut 2 pair
SD/103 size 12 front cut 1 pair
CF

Pattern instructions

To enable the garment to be made up correctly the

(7) Construction lines . . . these include darts, following instructions must be marked on the buttonholes, pocket placings, tucks, pleat lines,

pattern:

decorative stitch lines. These lines are marked

(1) The name of each piece.

on the pattern or shown by punch holes.

(2) Centre back and centre front.

(8) Grain lines . . . to achieve the effect you require, (3) The number of pieces to be cut.

you must understand the principle of placing a

(4) Folds.

pattern on the correct grain of the fabric (see

(5) Balance marks . . . these are used to make sure over page). Mark the grain line with an arrow.

pattern pieces are sewn together at the correct

Mark the grain lines on the working pattern

points.

before it is cut up into sections. Once in pieces

(6) Seam allowances . . . these can be marked by it can be difficult to find the correct grain on lines round the pattern or notches at each end

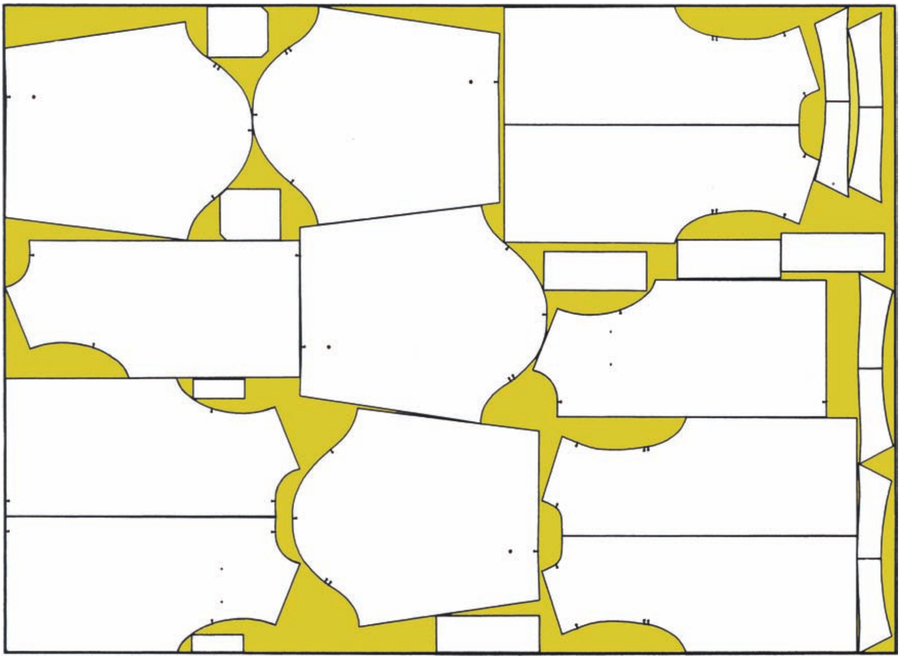
complicated pattern sections.

of the seam. If a pattern is nett (has no seam

(9) Pattern size.

allowance), mark this clearly on the pattern.

(10) Style no., *e.g.* SD/103.



36

A computer-generated cost lay plan with 84% efficiency.

Fabric grain

All woven fabrics have warp threads and weft

stretch characteristics; this allows the pattern to be threads. The warp threads run parallel to the cut with less ease. The design then fits the figure selvedge of the fabric and are the strongest; the weft closely but remains comfortable.

threads run across the fabric and are weaker.

Drape folds, drapes and softly flaring skirts hang It is good practice to have the vertical lines of the better when cut on the cross. The effects of cutting pattern running parallel to the warp threads. Pattern on the cross are increased by the choice of fabrics, pieces can be cut on the cross for the following

i.e. crepes, satins and soft woollens.

reasons:

Once the grain has been decided and marked on

Design features stripes and checks cut at different the pattern, always check that you have laid it on the angles can produce interesting designs.

fabric correctly before cutting out, or a distorted

Natural stretch fabric cut on the cross has natural garment will be produced.

Lays

Cost is very important, therefore economical lays are costing can be produced. This may be done in required by manufacturers. A ‘lay’ (or marker) is the varying widths of fabric.

plan of the pattern pieces as they are placed on the

If more than one fabric is used in a garment, more

fabric. Fabrics that have to be cut in one direction are than one lay plan will be made. The collection of usually very uneconomical; fabrics that allow the pieces pattern pieces required for each lay is known as a to be laid in both directions will reduce fabric costs. The

‘model’. Lay planning and marker making by

practice of saving fabric by laying pattern pieces across computer are increasing rapidly as the cost of the fabric or ‘off the grain’ should not be attempted by a systems is reducing. This method increases beginner as this practice can ruin a garment.

efficiency, that is the percentage area of fabric used When a designer submits a sample, a cost lay plan by the pattern. Most manufacturers aim for 80%

is made, usually of two garments, so that an accurate utilisation of the fabric.

PART ONE: CLASSIC FORM CUTTING

3 Basic adaptations of the bodice blocks

Darting the bodice

38

Openings 40

1 Low cut fronts

40

2 Standard buttoned front

40

3 Double breasted front

40

4 Fly front

40

5 Asymmetrical front

40

6 Shirt front

40

Darts in seams

42

7 Bust dart in vertical seams

42

8 Bust dart in curved vertical seams

42

9 Bust dart in horizontal seams

42

10 Bust dart in curved seams

42

Darts in fullness

44

11 Bust dart in tucks

44

12 Bust dart in gathers

44

13 Bust dart in pleats

44

14 Gathered bust seam

46

15 Wrap over front

46

16 Draped

front

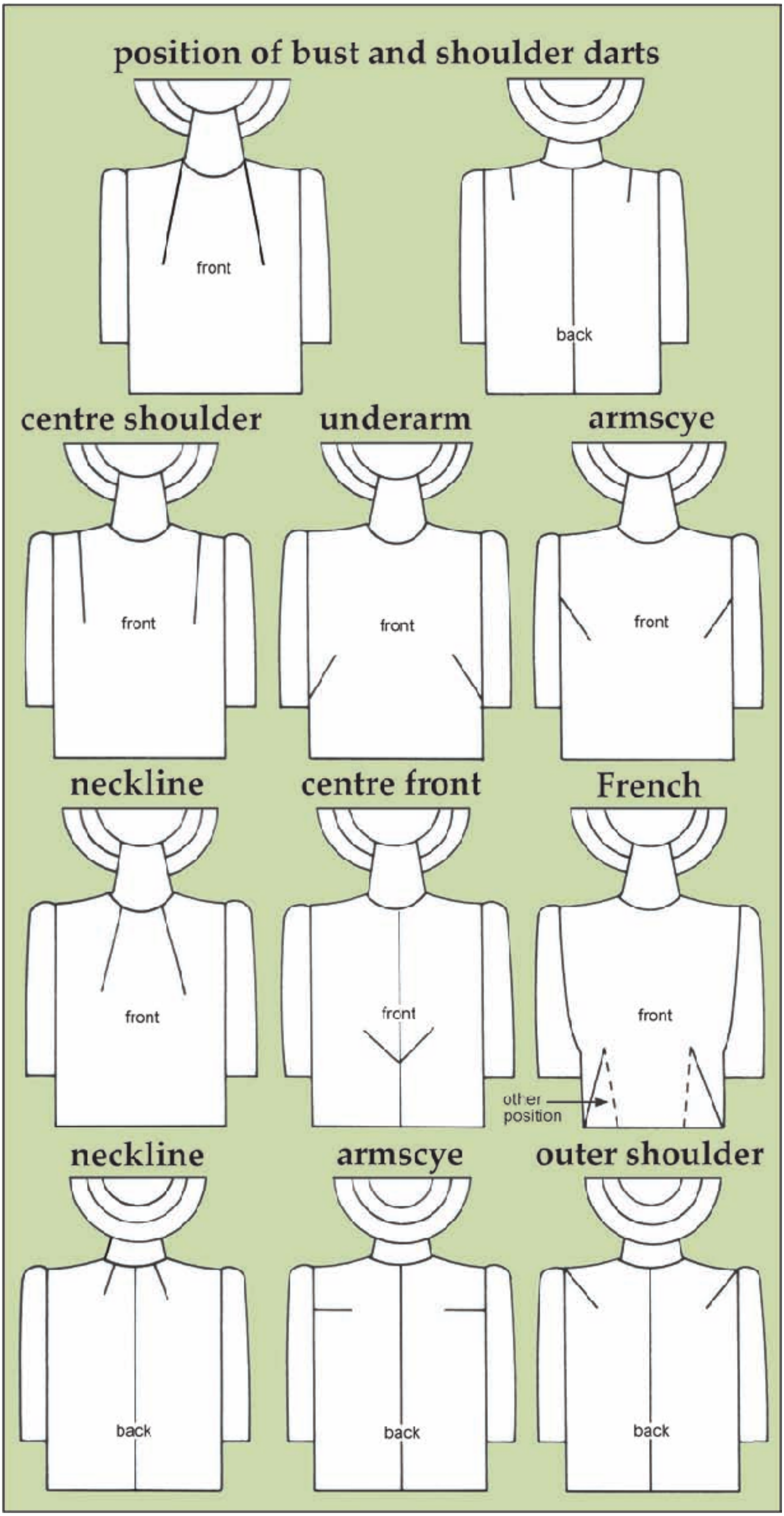
46

Classic blouse shapes

17 Classic

blouse

48



position of bust and shoulder darts

front
back
centre shoulder
front
underarm
front
armscye
front
neckline
front
centre front
front
French
front
other position
neckline
back
armscye
back
outer shoulder
back

Darting the bodice to give shape for the bust and shoulder blades

It is necessary to consider the shape of the body when designing a bodice. At this stage do not be concerned with waist darts, they are used to shape the waist only.

Experiment with the bust and shoulder darts which provide the shaping for bust and shoulder blades.

Their positions on the bodice block are shown on the drawings.

These positions can be moved around the body as long as the point of the dart remains at the point of the bust or shoulder blades. See diagram opposite. Try swinging the darts to new positions.

Bust dart

Centre shoulder trace round front bodice block. Draw a line from centre shoulder to the point of the bust. Cut up the line. Close original dart and secure with tape.

The bust dart is now in centre shoulder position. By the same method transfer bust dart to: *underarm*; *armscye*; *neckline* and *centre front*.

French dart this dart combines bust dart and front waist dart. Trace round front bodice block, draw in the waist shaping. Draw a line from a point at waist side seam to bust point. Cut up the line. Close bust dart and front waist dart to make a very large dart at base of side seam. This large dart can be placed at the waist position.

Note When the bust dart is in

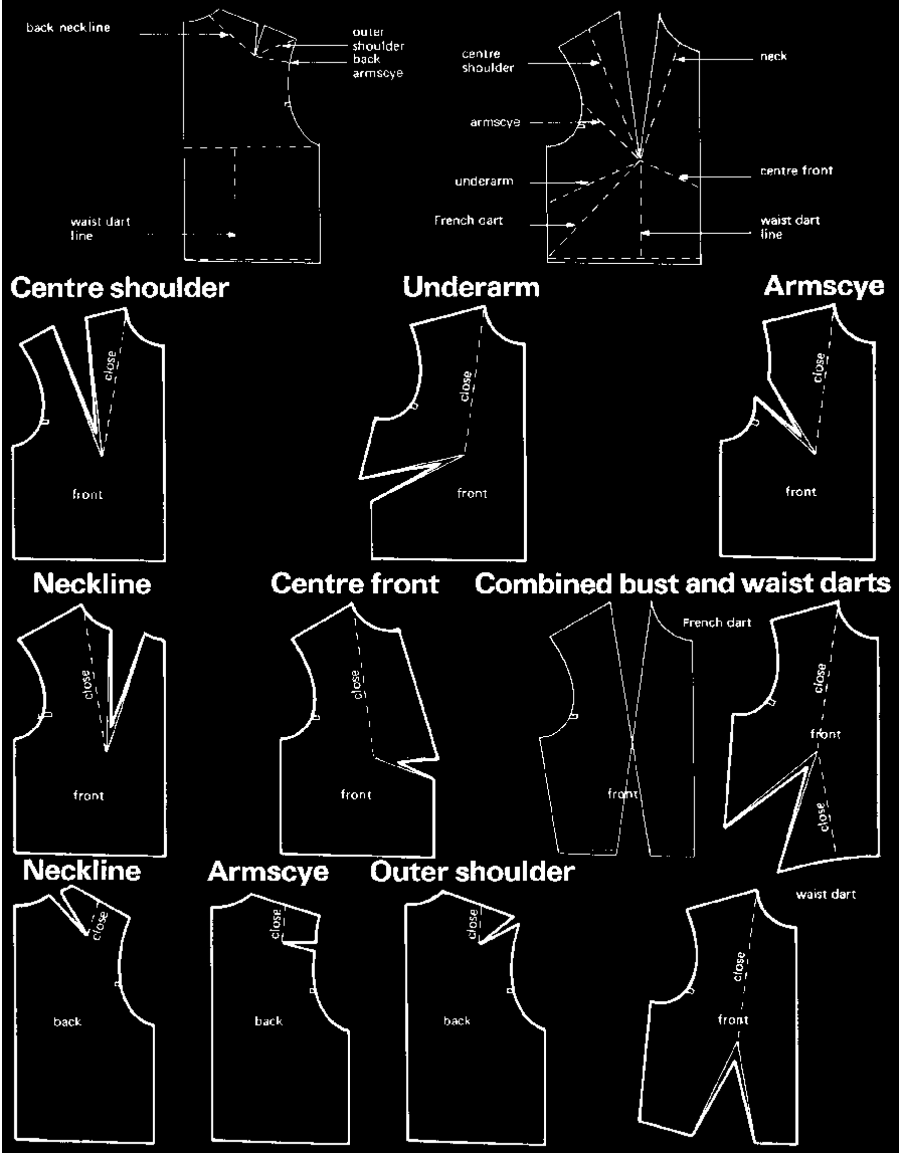
the final position for the design, shorten it by 2 cm.

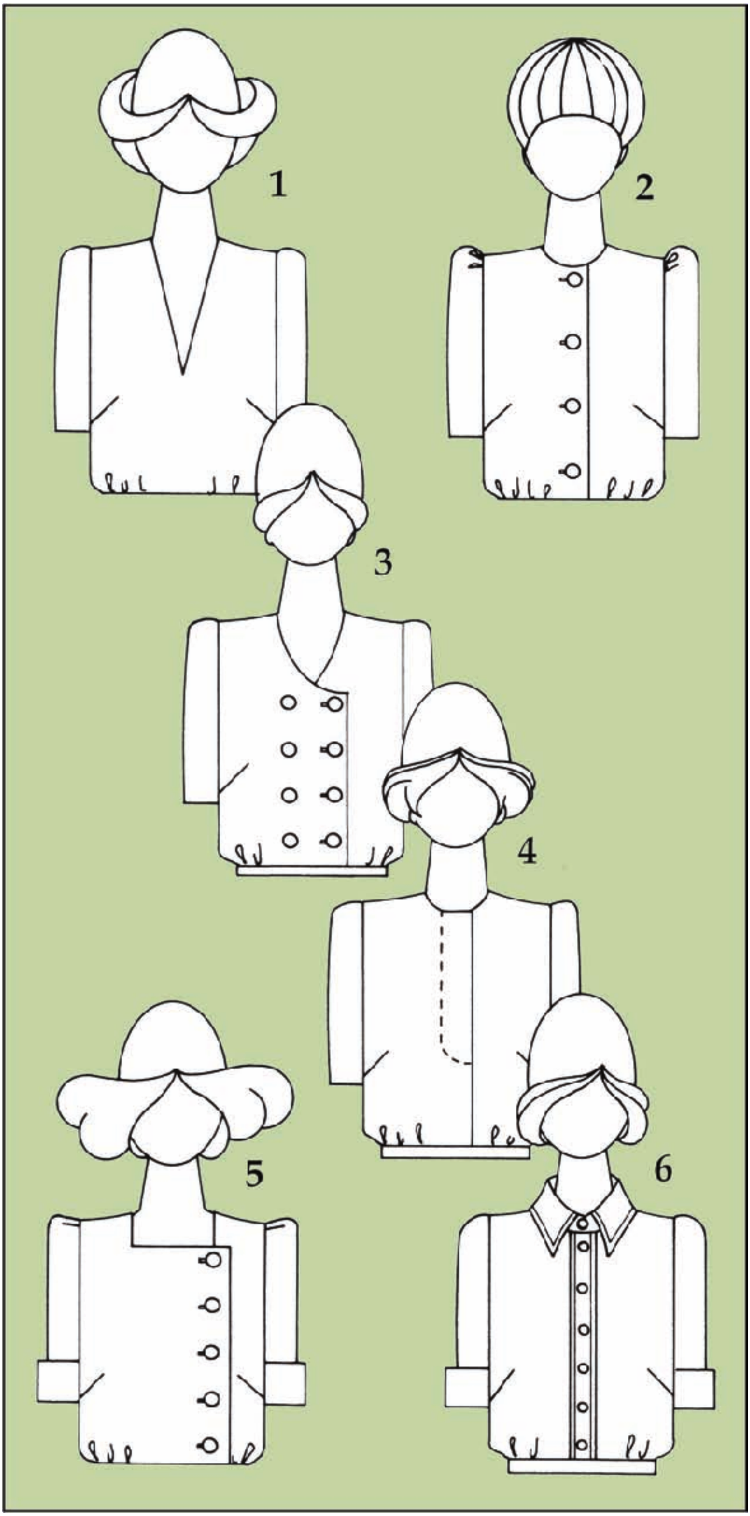
Back shoulder dart

Neck trace round back bodice block. Draw a line from neck to base of shoulder dart. Cut up the line. Close shoulder dart. By the same method transfer shoulder dart to:

armscye; *outer shoulder point*.

Other positions of bust and shoulder darts


back neckline
outer shoulder
back armscye
waist dart line
centre shoulder
neck
armscye
centre front
underarm
French dart
waist dart line
Centre shoulder
close
front
Underarm
close
front
Armscye
close
front
Neckline
close
front
Centre front
close
front
Combined bust and waist darts
French dart
front
close
front
close
Neckline
close
back
Armscye
close
back
Outer shoulder
close
back
waist dart
close
front


1
2
3
4
5
6

Openings

1 Low cut fronts

Low cut necks can gape at front.

To correct, move bust dart to underarm position. Draw neckline. Make small dart approx. 0.6 cm wide from neckline to bust point. Close dart. Correct slightly distorted neckline.

2 Standard buttoned front

Mark buttonholes on centre front line (buttonholes overlap this line by 0.2 cm); add buttonstand approx. 2.5 cm; this varies with size of button.

Fold outer line, wheel through the outline and facing line to make extended facing.

3 Double breasted front

Alter neckline to shape required. Draw in two button lines, equal distance each side of centre front. Mark buttonholes (as standard front). Add buttonstand.

Wheel through separate facing.

4 Fly front

Right front Add buttonstand to centre front. Draw in finished stitch line. Add an extension to front edge 5 cm below stitch line and 2.5 cm wider than width of stitching. Wheel through a facing with the same extension.

Mark vertical buttonholes on centre front line of facing.

Left front Construct left front as a standard buttoned front.

5 Asymmetrical front

Trace complete front of bodice, mark button line, mark buttonholes, add buttonstand.

Draw in neckline.

Make a separate facing.

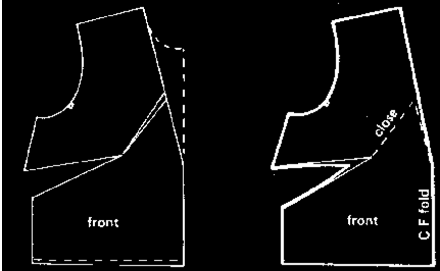
Trace left front to button line, add buttonstand and extend facing.

6 Shirt front

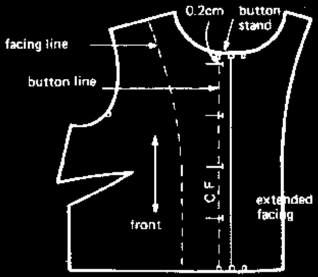
Right front Add buttonstand 1.5 cm wide. Draw a line 1.5 cm in from centre front. Wheel through front strap. Mark in vertical button holes on centre front line.

Left front Add buttonstand and an extended facing 3 cm wide.

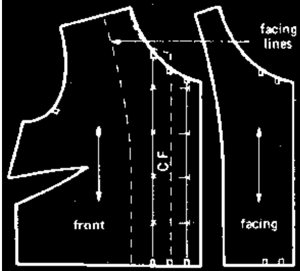
1 Low cut front


front
close
front
C F fold

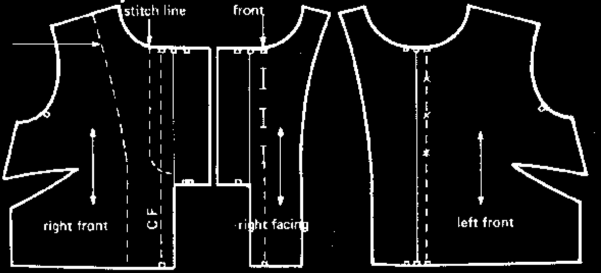
2 Standard buttoned front


0.2cm
button stand
facing line
button line
front
C F
extended facing

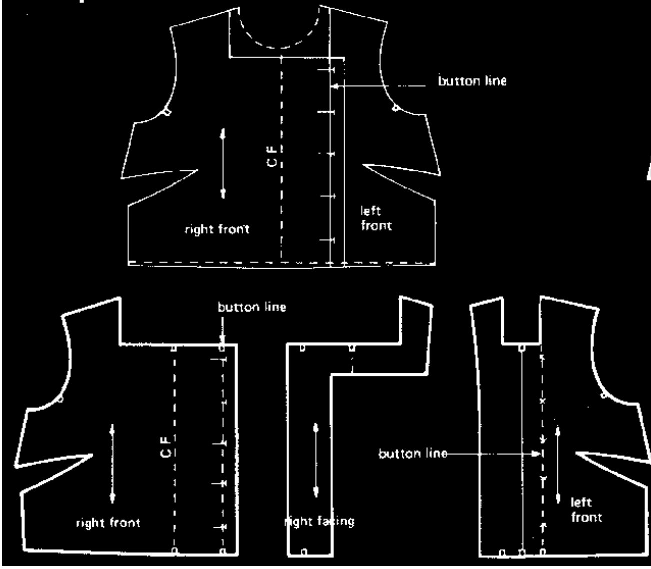
3 Double breasted front


facing lines
C F
front
facing

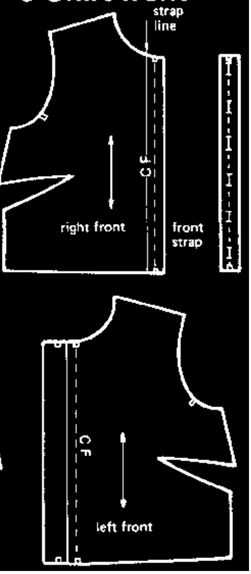
4 Fly front

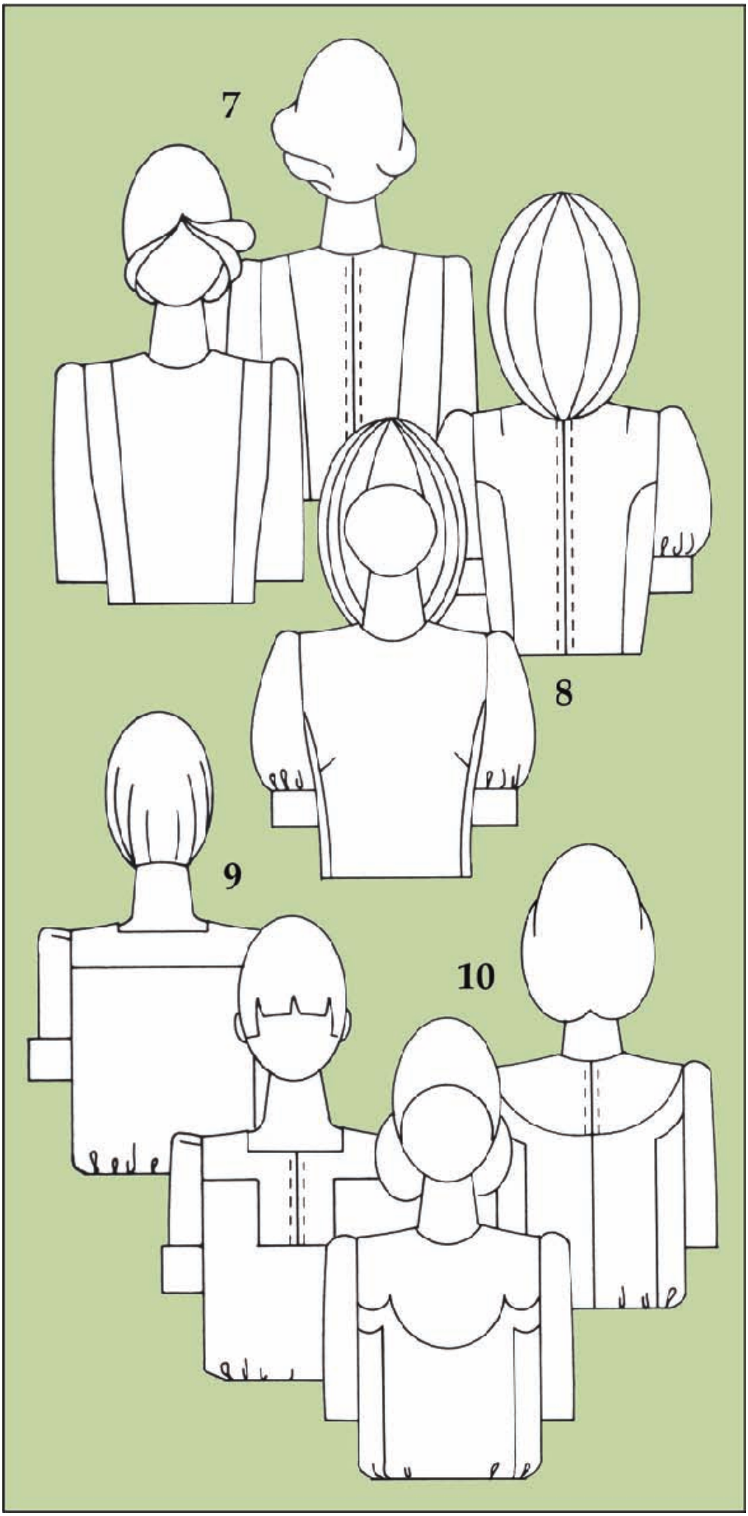

stitch line
centre front
right front
C F
right facing
left front

5 Asymmetrical front


button line
C F
right front
left front
button line
C F
right front
right facing
button line
left front

6 Shirt front


strap line
C F
right front
front strap
C F
left front


7
8
9
10

Darts in seams

Darts can be placed in seams if the seam goes through the bust point. If seam is away from the bust point a small dart or ease will still be required to give shape to the bust, *e.g.* 8.

7 Bust dart in vertical seams

Trace round bodice block required. Draw a line from back shoulder dart to top of waist dart. Transfer bust dart to centre shoulder. Cut out panel sections and trace round. Curve panel and side seams as shown. Shape waistline at base of panels.

8 Bust dart in curved vertical seams

Trace round bodice block required. Draw in fitted side seam and curved panel lines; draw in required amount of waist shaping on these lines. Draw a line from front panel to the base of bust dart.

Cut out panel sections, trace round.

Close bust dart to transfer it to panel line. Shape seams, shape waistline at base of panels.

9 Bust dart in horizontal seams

Trace round bodice block required.

Back yoke Draw in back yoke line, slope it down 1 cm to armscye edge from base of shoulder dart.

Cut away yoke; close shoulder dart.

Draw in square neckline.

Back Draw panel line, points 1–2.

Draw slight waist shaping. Cut up panel.

Trace round back pattern.

Front Transfer bust dart to side panel line. Draw in square neckline and front yoke line. Cut away yoke and trace round. Close bust dart.

10 Bust dart in curved seams

Trace round bodice block required.

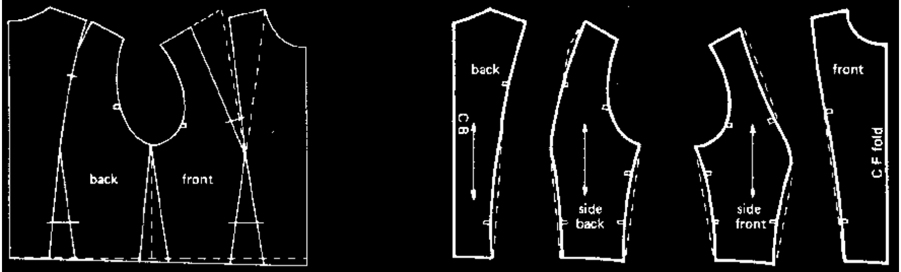
Draw in panel lines on block. Cut into sections.

Trace round lower sections.

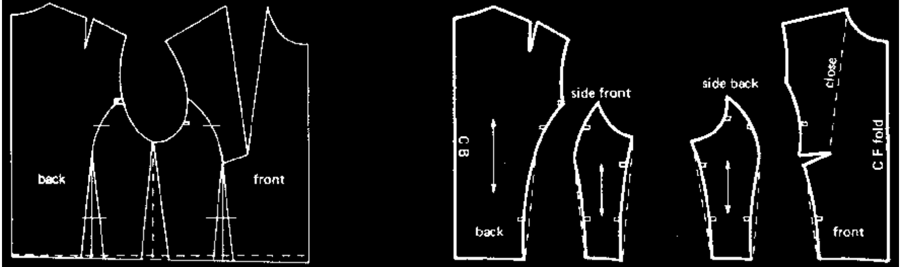
Back yoke Extend back dart to edge of yoke. Close dart.

Front yoke Close bust dart.

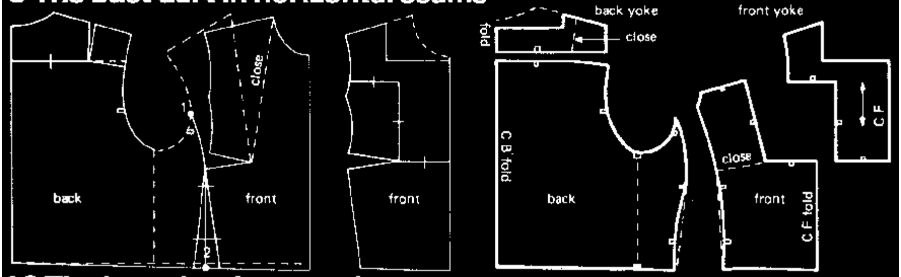
7 The bust dart in vertical seams


back
front
back
C B
side back
side front
front
C F fold

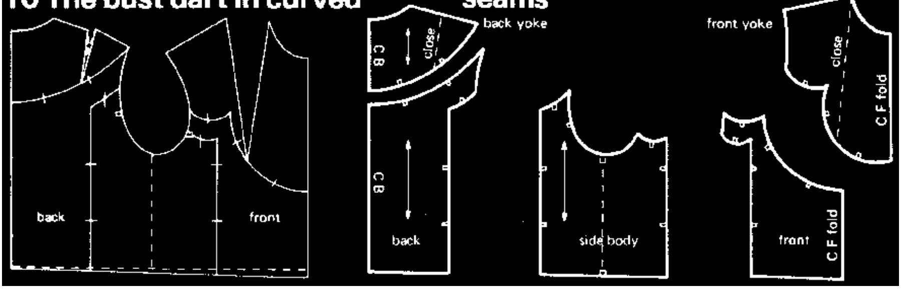
8 The bust dart in curved vertical seams

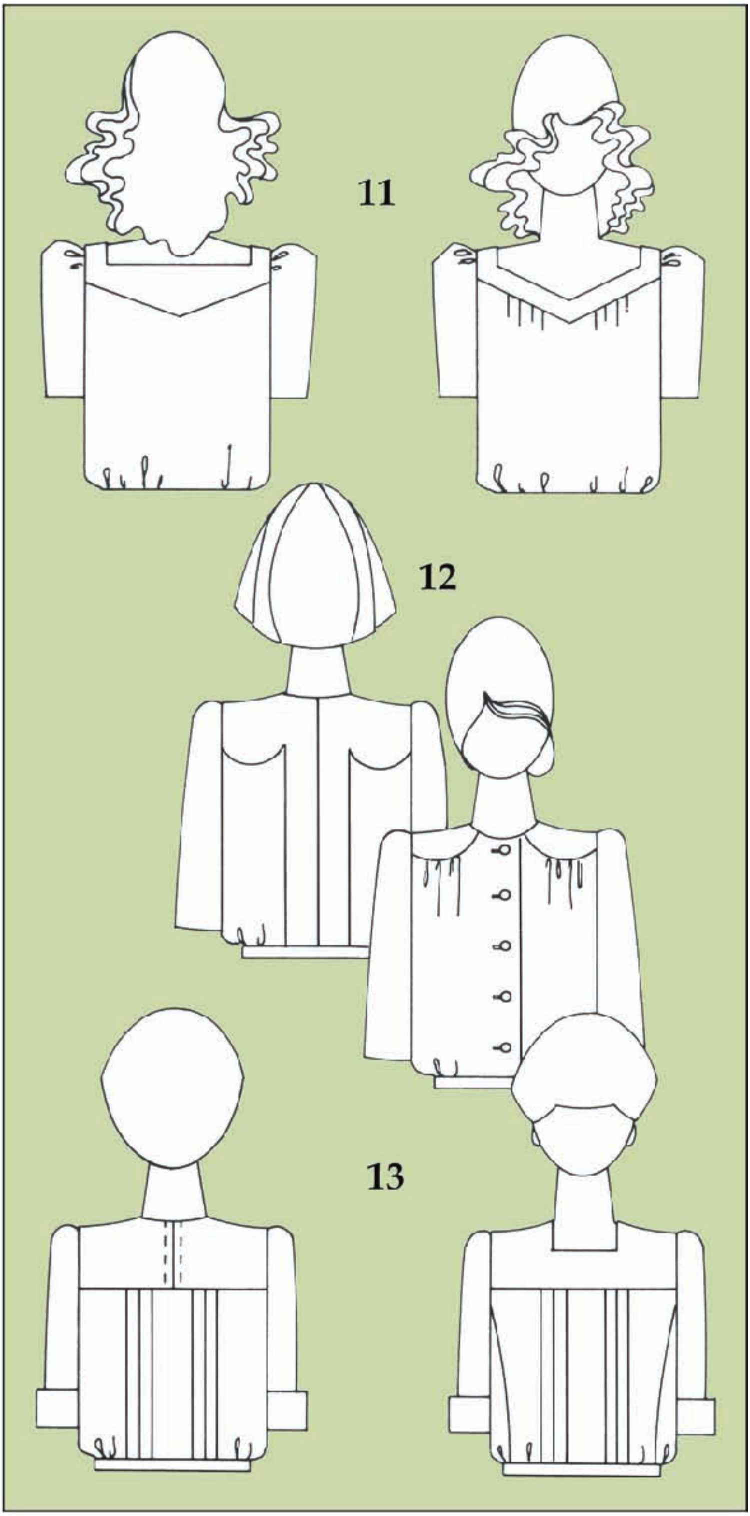

back
front
C B
back
side front
side back
close
C F fold
front

9 The bust dart in horizontal seams


close
1
5
2
back
front
front
back yoke
fold
close
front yoke
C B fold
back
close
front
C F fold
C F

10 The bust dart in curved seams


back
front
back yoke
C B
close
front yoke
close
C F fold
C B
back
side body
front
C F fold


11
12
13

Darts in fullness

Darts can be placed in fullness, *e.g.* tucks, gathers and pleats.

11 Bust dart in tucks

Trace round bodice block required. Transfer bust dart to underarm (cut down side seam to top of dart).

Yokes Draw in yoke lines, cut away, close back dart. Draw in neckline. For wide necklines narrow shoulder at armscye of back and front yokes.

Back Trace round back section.

Front Draw vertical line through bust point; cut up this line. Close underarm dart. Trace round front sections allowing 2 cm gap between vertical lines.

Mark four tucks on the top line of front. Size of tuck is the distance 1–2 divided by 4.

12 Bust dart in gathers

Draw round bodice block

required. Cut up side seam.

Back Draw in back panel. Cut up

lines.

Trace round panels. Close dart.

Front Transfer bust dart to

underarm. Draw in yoke line; mark

balance points. Drop a vertical line

from yoke through bust point. Cut

away yoke. Cut up vertical line,

open 3 cm. Close underarm dart.

Trace round pattern.

Mark buttonholes. Add buttonstand

and facing to centre front.

13 Bust dart in pleats

Trace round bodice block required.

Draw in front panel line. Cut up

panel line. Transfer bust dart to

panel seam. Draw in back yoke

line, slope down 1 cm at armscye

from base of shoulder dart. Draw

in front yoke line. Cut away yokes

and trace round. Close back dart.

Draw in front neckline.

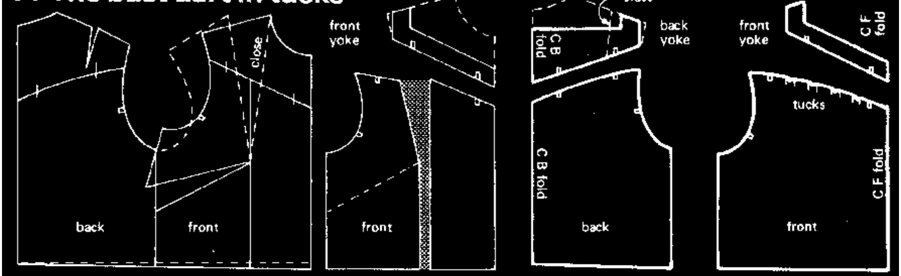
Bodice sections Draw in pleat lines (2 cm wide) on both bodices cut up pleat lines. Insert 4 cm between the pleat lines.

Trace round new patterns, close underarm dart.

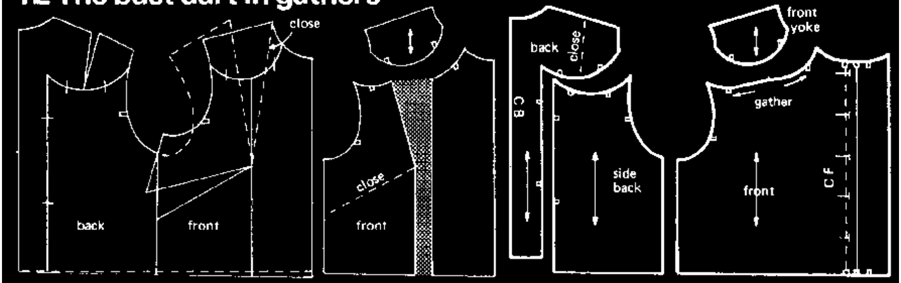
Fold pleats, cut out patterns.

Note Pleats on front bodice can be stitched down to bust line.

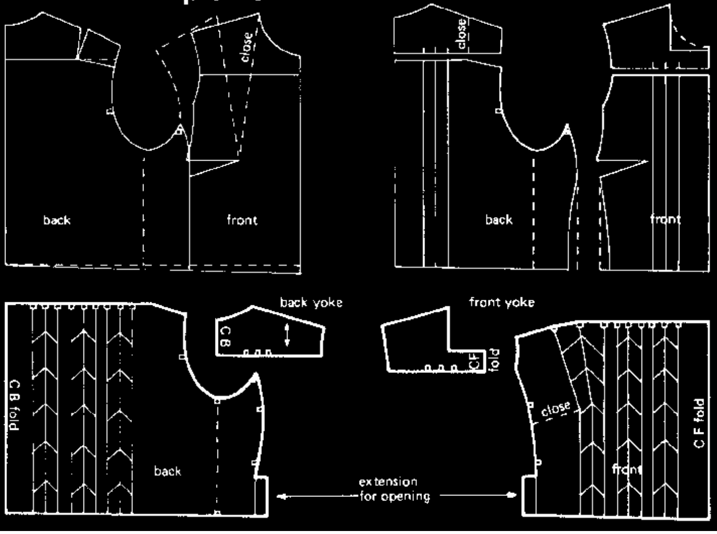
11 The bust dart in tucks

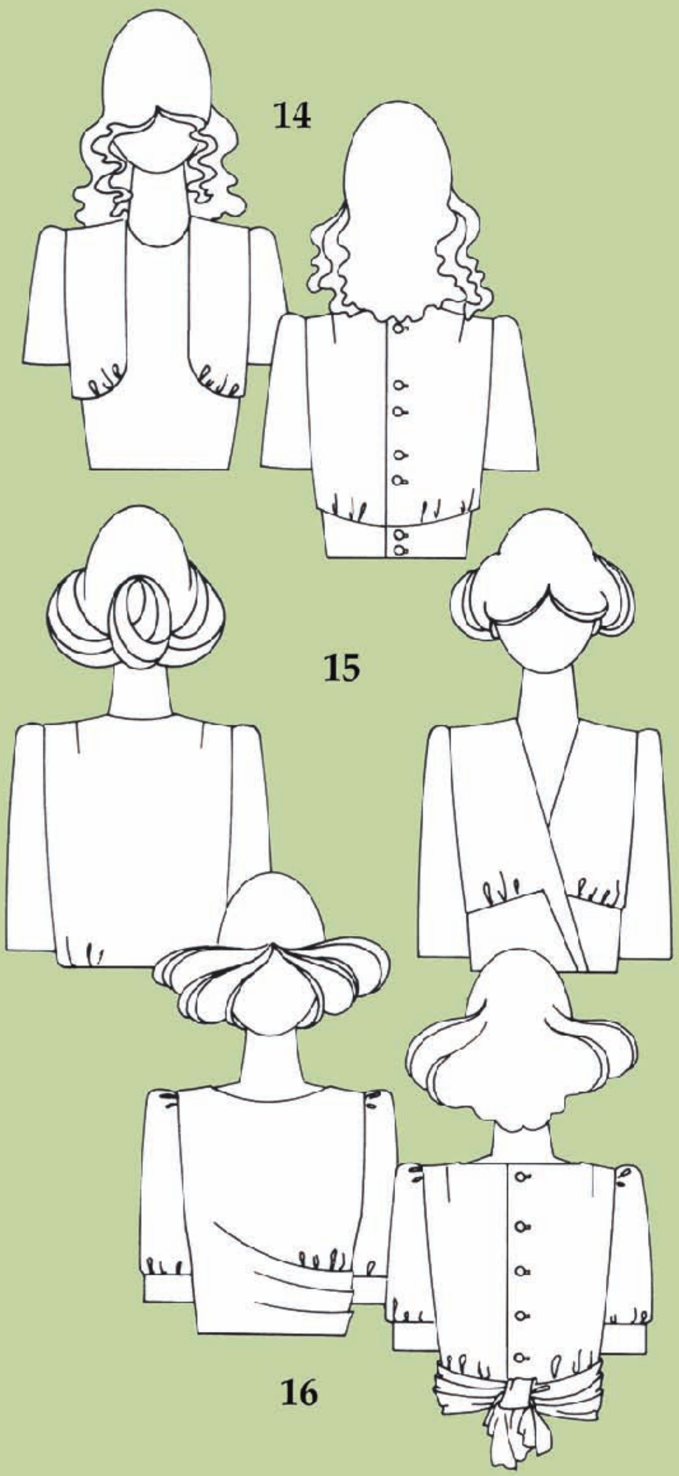

back
front
close
front yoke
front
close
C B fold
back yoke
front yoke
C F fold
C B fold
back
tucks
C F fold
front

12 The bust dart in gathers


close
back
front
close
front
back
close
C B
side back
front yoke
gather
front
C F

13 The bust dart in pleats


close
back
front
close
back
front
back yoke
C B
front yoke
CF fold
C B fold
back
close
front
C F fold
extension for opening


14
15
16

14 Gathered bust seam

Trace round fitted bodice block. Transfer bust dart to armscye, draw in shaped bust seam and extend across back. Mark balance points for position of gathers. Draw a line from front armscye to shaped bust seam as shown.

Shaped front panel Cut away lower sections and place together as shown, overlap 2.5 cm at top of side seam. Trace round making a smooth line along top edge. Mark buttonholes and add buttonstand, at centre back.

Side front Close bust dart. Cut up drawn line, open 2 cm at bottom for extra fullness. Trace round pattern.

Back Straighten side seam. Mark

buttonholes, add buttonstand.

Make a combined facing for back and lower panel.

15 Wrap over front

Trace round fitted bodice block (both sides of front). Transfer dart to armscye. Draw in wrap over front and midriff line.

Mark balance points for positions of gathers.

Make a small dart in neckline (ref. Low cut front, page 40).

Front Cut up side seams and cut away lower section. Close armscye and neck darts on upper section, trace round, straighten neckline.

Close dart on lower section, trace round.

Back Trace round back pattern, rub out waist dart.

16 Draped front

Trace round bodice block required (both sides of front). Mark drape lines across front bodice.

Cut up side seam.

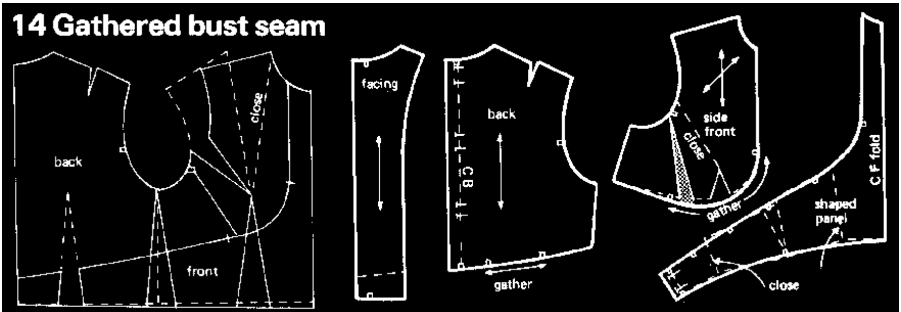
Back Trace round back pattern, lower neckline, mark buttonholes, add buttonstand and extended facing, rub out dart.

Front Cut along drape lines, close waist darts. Close both bust darts. Open drape lines approx. 4 cm. Trace round pattern.

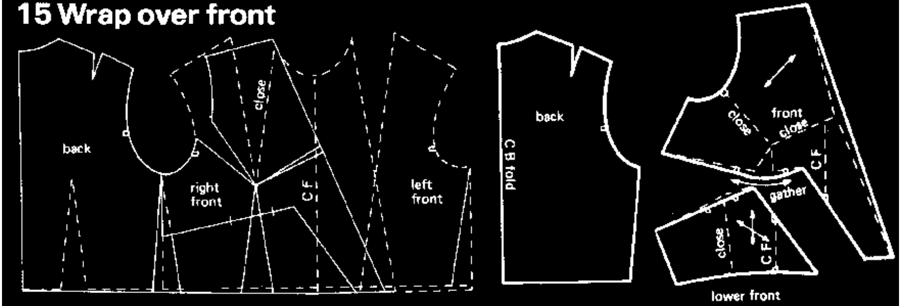
Lower neckline.

Extend lower section to length required for tie. Trace tie piece for facing and back tie pattern.

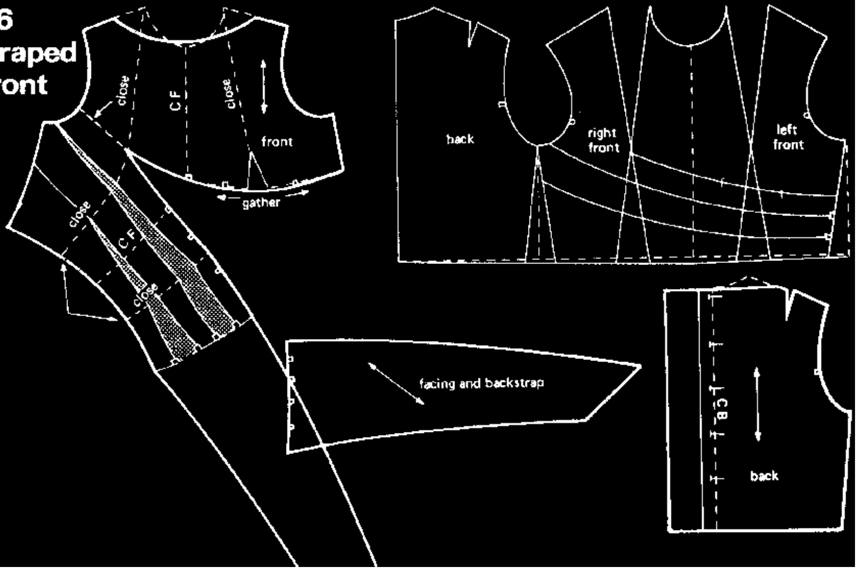
14 Gathered bust seam


back
close
front
facing
back
C B
gather
side front
close
gather
C F fold
shaped panel
close

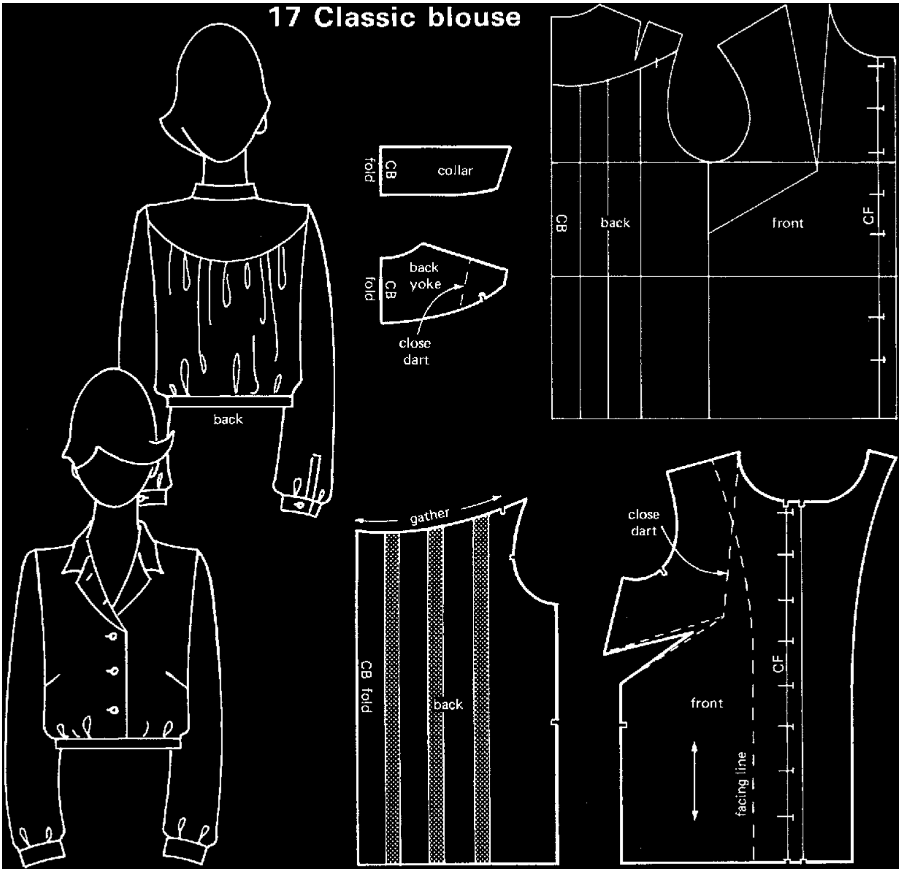
15 Wrap over front

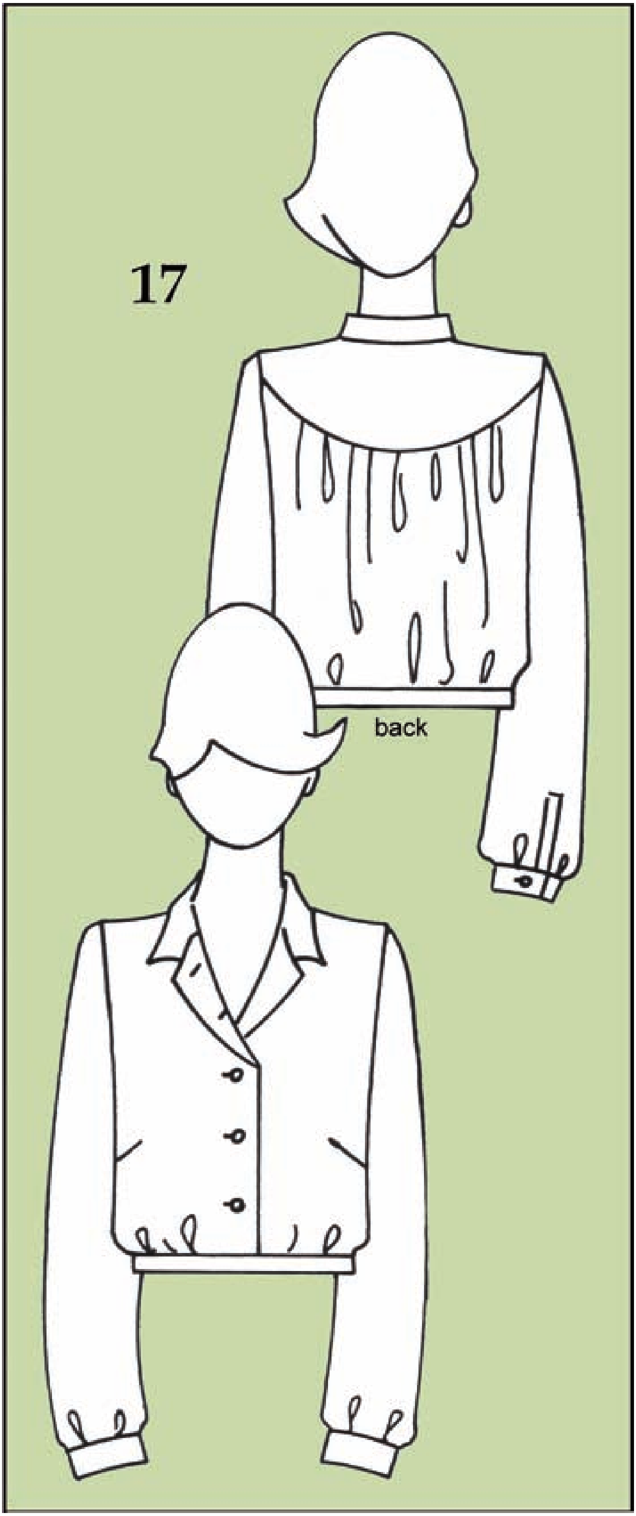

back
close
right front
C F
left front
back
C B fold
front
close
close
C F
gather
close
C F
lower front

16 Draped front


close
C F
close
front
gather
close
C F
close
back
right front
left front
facing and backstrap
C B
back

17 Classic blouse


back
fold CB
collar
fold CB
back yoke
close dart
CB
back
front
CF
gather
CB fold
back
close dart
front
CF
facing line


17
back

Classic blouse shapes

The design illustrates the procedure and order for

ease into 0.5 cm dart. Draw back yoke line; divide the the simple adaptation of a blouse shape with a set in line into four sections; square down.

sleeve.

Cut up side seam.

The basic shape is suitable for styles that require

Back Cut away yoke, extend dart to yoke line; close the retention of bust shaping and therefore require a dart.

block with a bust dart. Select the close fitting block Cut up lines on back section, open approx. 2 cm.

for full bust shaping, the easy fitting for an easier fit.

Redraw yoke line curve.

Note If a classic shirt style without bust darting is **Front** Transfer dart to underarm; shorten dart.

required select the basic shirt block on page 140.

Draw in facing line; construct an extended facing

(ref. 2 page 40).

17 Classic

blouse

Sleeve Shirt sleeve (ref. 2 page 50 or ref. 24 page 56).

Trace round bodice block required to hipline. Draw

Collar Convertible collar (ref. 8 page 72).

in buttonholes; add buttonstand. Place any shoulder

PART ONE: CLASSIC FORM CUTTING

4 Sleeve adaptations

1 Straight sleeve

50

26 Dropped

shoulder

58

2 Shirt sleeve

50

27 Dropped shoulder with puff

3 Semi-fitted sleeve

50

sleeve 58

4 Sleeve with back seam

50

28 Extended

sleeve

58

5 Close fitting sleeve

50

29 Flared extended sleeve

58

6 Short sleeve

50

30 Extended sleeve with yoke

58

7 Fitted short sleeve

50

31 Basic raglan sleeve

60

8 Padded shoulders

50

32 Flared raglan sleeve

60

9 Sleeve with slight flare

52

33 Deep raglan sleeve

60

10 Very flared sleeve

52

34 Raglan with square shoulder

60

11 Gathered into a cuff

52

The shaped kimono blocks

62

12 Sleeve with flared section 52

Kimono sleeves 62

13 Sleeve with mock cuff 52

35 Basic kimono block 62

14 Bishop sleeve 52

36 Close fitting kimono block 62

15 Lantern sleeve 52

37 Easy fitting kimono block 62

Adapting the bodice and sleeve *54*

38 Dolman

sleeve

64

16 Puff

sleeve

54

39 Shaped

sleeve

64

17 Gathered

head

54

40 Square

armscye

64

18 Darted

head

54

41 Batwing

64

19 Seamed

head

54

42 Kimono style with yoke

64

20 Inset cap sleeve

54

43 Cap

sleeve

66

21 Strapped

head

54

44 Cap sleeve with gusset

66

22 Raised

seam

54

45 Cap sleeve with panel

66

23 Lowered

armscye

56

46 Flared

cape

66

24 Easy

fitting ‘shirt’ armscye

56

47 Fitted

Cape

66

25 Dropped

shoulder

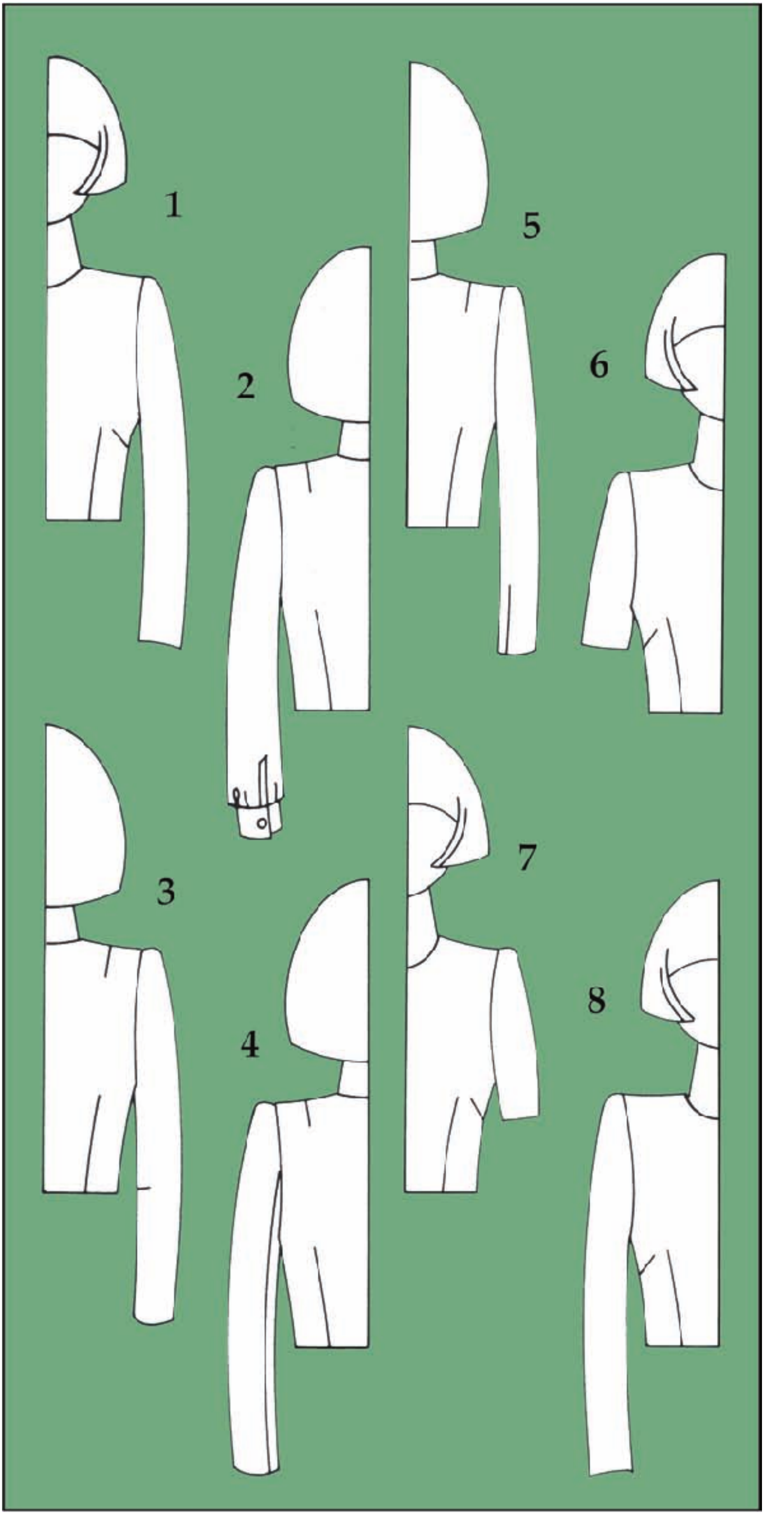
with

lowered armscye

56

Cuffs

68


1
2
3
4
5
6
7
8

1 Straight sleeve

Trace basic sleeve block, hollow side seams 0.5 cm. Short sleeve line is midway between armscye and elbow. Three quarter line is midway between elbow and wrist.

2 Shirt sleeve

Shorten straight sleeve by depth of cuff. Mark back opening midway between centre line and side seam. Narrow at wrist 2.5 cm.

3 Semi-fitted sleeve

Trace straight sleeve. Narrow sleeve at wrist by 3 cm. Shape seam. Cut from back elbow line to point 1 and from point 1 to wrist line. Pivot this section forward 4 cm, to make a dart at elbow line. Halve the length of dart less 1 cm. Mark in new centre line from point 1 to centre of wrist.

4 Sleeve with back seam

Trace semi-fitted sleeve. Draw line From back balance point through dart point to wrist (1/4 wrist measurement).

Place side seams together at underarm and wrist. Close dart.

5 Close fitting sleeve

Trace semi-fitted sleeve. Take 1.25 cm off each side seam. Cut up centre seam, overlap 1 cm. Drop line from point of dart to wrist. Cut line, close elbow dart. Shorten dart. Make wrist opening. Raise armscye 1.5 cm. Cut sleeve on the cross in woven fabrics.

6 Short sleeve

Trace straight sleeve pattern to short sleeve line. Shape in 1.5 cm at the bottom of each side seam.

7 Fitted short sleeve

Draw 1 cm dart on centre line.

Close dart. Trace round pattern.

8 Padded

shoulders

Trace bodice and sleeve blocks.

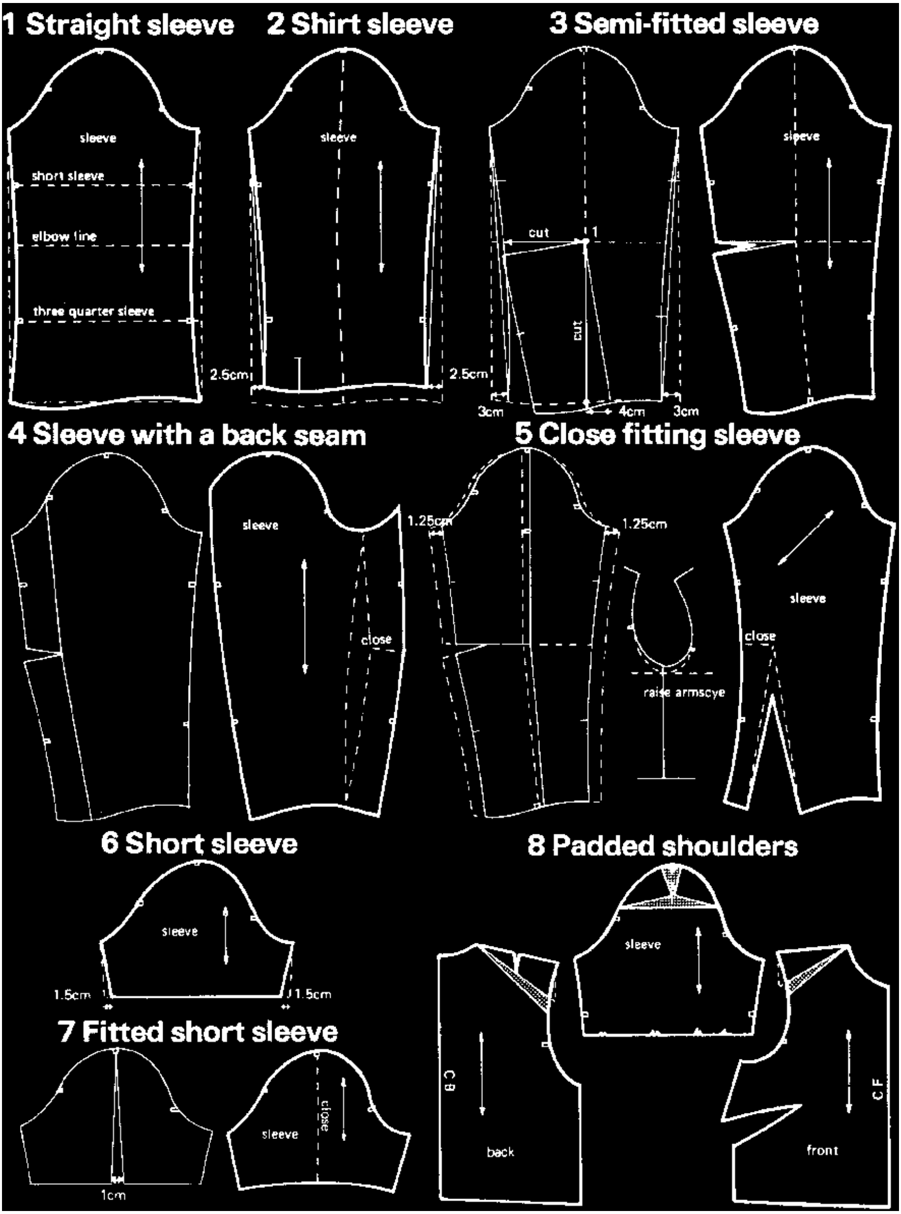
Slash from armscye to neck of bodice.

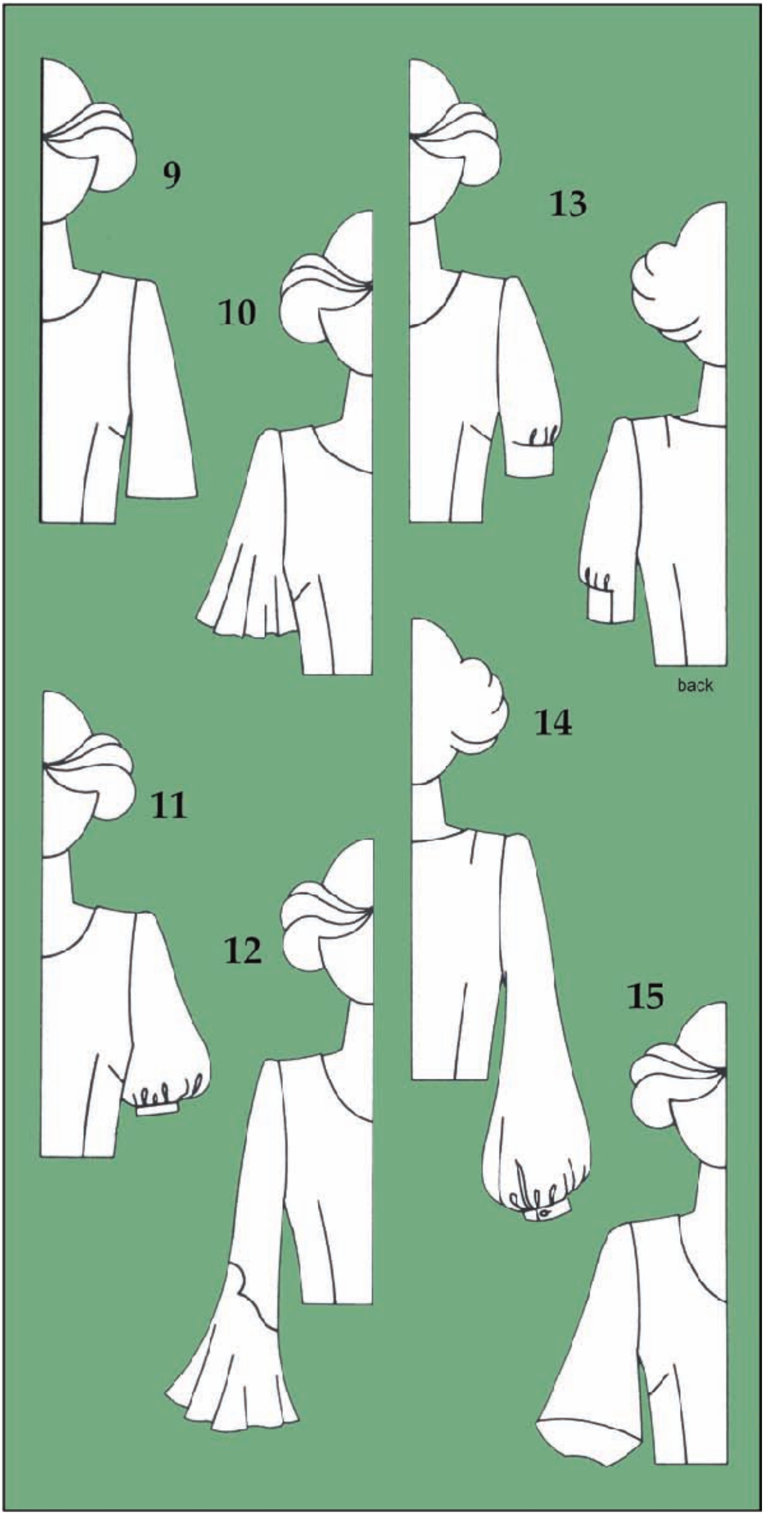
Open depth of pad. Cut across sleeve

head and up centre line.

Open out the same amount inserted

in armscye.


1 Straight sleeve
sleeve
short sleeve
elbow line
three quarter sleeve
2 Shirt sleeve
sleeve
2.5cm
2.5cm
3 Semi-fitted sleeve
cut
1
cut
3cm
4cm
3cm
sleeve
4 Sleeve with a back seam
sleeve
close
5 Close fitting sleeve
1.25cm
1.25cm
raise armscye
sleeve
close
6 Short sleeve
sleeve
1.5cm
1.5cm
7 Fitted short sleeve
1cm
sleeve
close
8 Padded shoulders
sleeve
C B
back
C F
front


9
10
13
back
14
11
12
15

9 Sleeve with slight flare

Trace straight sleeve to length required. Divide into six sections. Cut up lines, open approx. 1 cm. Grain line is in centre of middle opening.

10 Very flared sleeve

The sleeve is shown with more flare inserted between the sections.

11 Gathered into a cuff

The very flared sleeve can be gathered into a cuff constructed to fit the top arm measurement.

12 Sleeve with flared section

Trace straight sleeve to length required. Shape in 1 cm. Draw in curved shape. Divide lower sleeve into six sections. Cut away lower sleeve. Cut up lines, open for required amount of flare.

Trace round pattern.

13 Sleeve with mock cuff

Trace short sleeve, lengthen 4 cm.

Draw in ‘cuff’ shape. Drop five vertical lines from sleeve head as shown. Cut along ‘cuff’ line and up lines. Open to give required amount of flare. Trace round pattern.

Fold paper along ‘cuff’ hemline, wheel through to trace ‘cuff’ facing.

Cut out pattern.

14 Bishop sleeve

Trace straight sleeve. Divide into six sections. Cut out, cut up lines. Draw a vertical grain line on a new piece of paper. Open centre line of sleeve evenly each side of line (e.g. 8 cm). Open the two back lines 8 cm, front lines 4 cm.

After reducing cuff depth measurement, add extra length, twice as much at centre back.

15 Lantern sleeve

Trace straight sleeve to length

required, draw in seam.

Divide into six sections.

Cut out top and bottom sleeve. Cut

up lines of upper section, open for

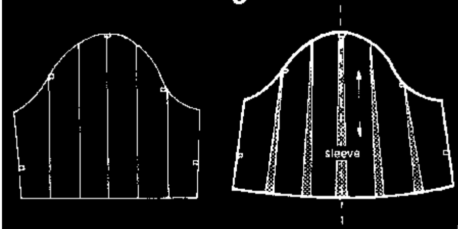
required amount of flare.

Open sections of lower sleeve at the

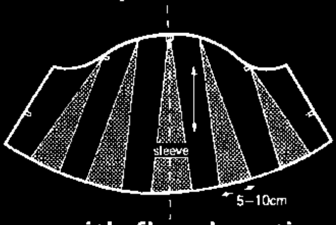
top the same amount, overlap slightly

at lower edge.

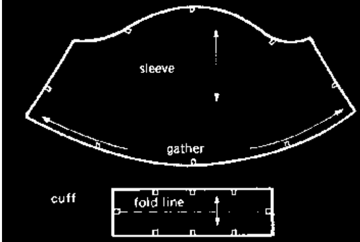
9 Sleeve with slight flare



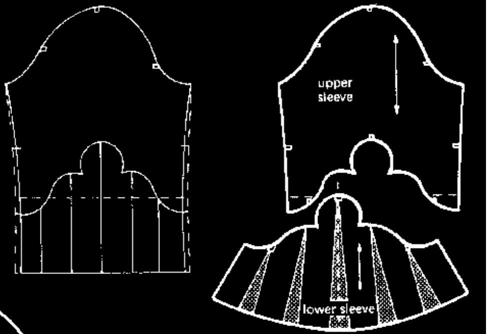
10 Very flared sleeve


sleeve
5–10cm

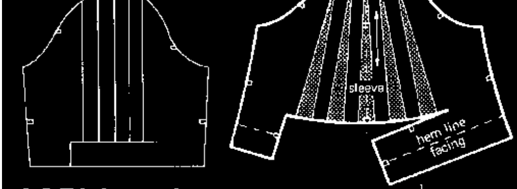
11 Gathered into a cuff


sleeve
gather
cuff
fold line

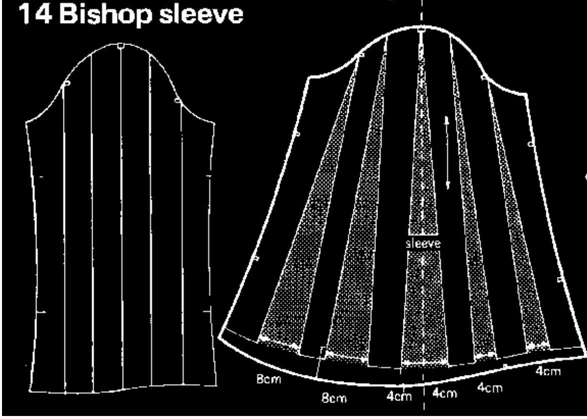
12 Sleeve with flared section


upper sleeve
lower sleeve

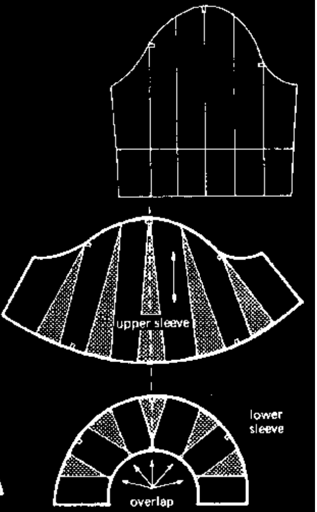
13 Sleeve with mock cuff

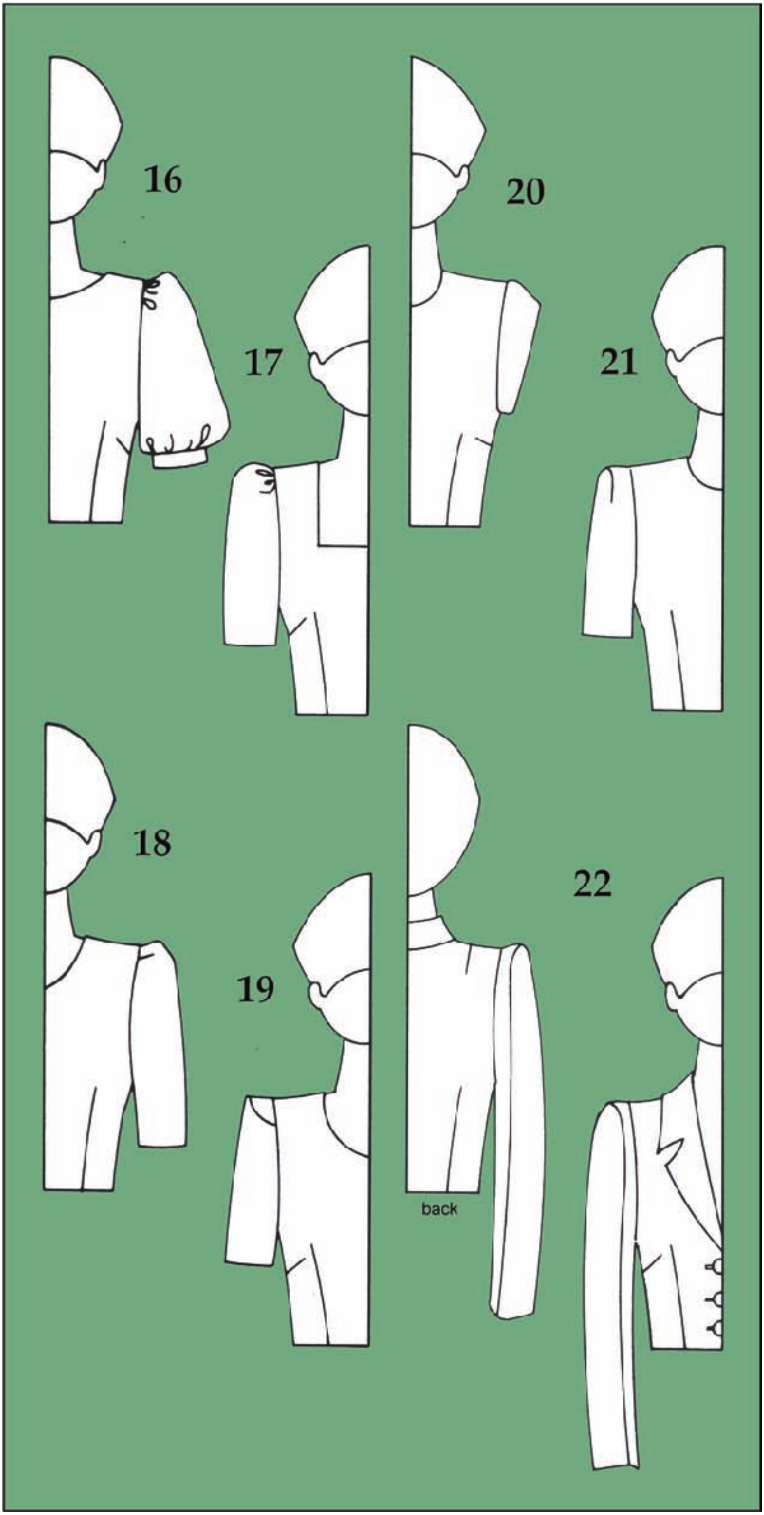

sleeve
hem line
facing

14 Bishop sleeve


sleeve
8cm
8cm
4cm
4cm
4cm
4cm

15 Lantern sleeve


upper sleeve
lower sleeve
overlap


back

Adapting the bodice and sleeve

Raised sleeve heads give a wide—shouldered look. If not required take 1 cm off shoulder edges as shown, add 1 cm to sleeve head.

16 Puff sleeve

Trace short sleeve. Divide into six sections. Cut out, open sections amount required. Add extra depth to sleeve head and hem as shown.

17 Gathered head

Trace short sleeve. Divide sleeve head into five sections above back balance point. Mark balance points for gathers at top of sections 1 and 5. Cut up sections, open out.

18 Darted head

Proceed as for gathered head, using four sections. Draw in darts. Trace round pattern shaping dart edges.

19 Seamed head

Trace short sleeve. Drop three vertical lines from sleeve head. Draw in seam line 4 cm down. Wheel through top piece, cut out, open each section 1.5 cm, trace round. Cut out *complete* sleeve, open out 0.75 cm, to fit inset.

20 Inset cap sleeve

Trace short sleeve. Lower sleeve head 2 cm. Draw in depth of cap.

Divide into sections, cut out and open till lower line is straight.

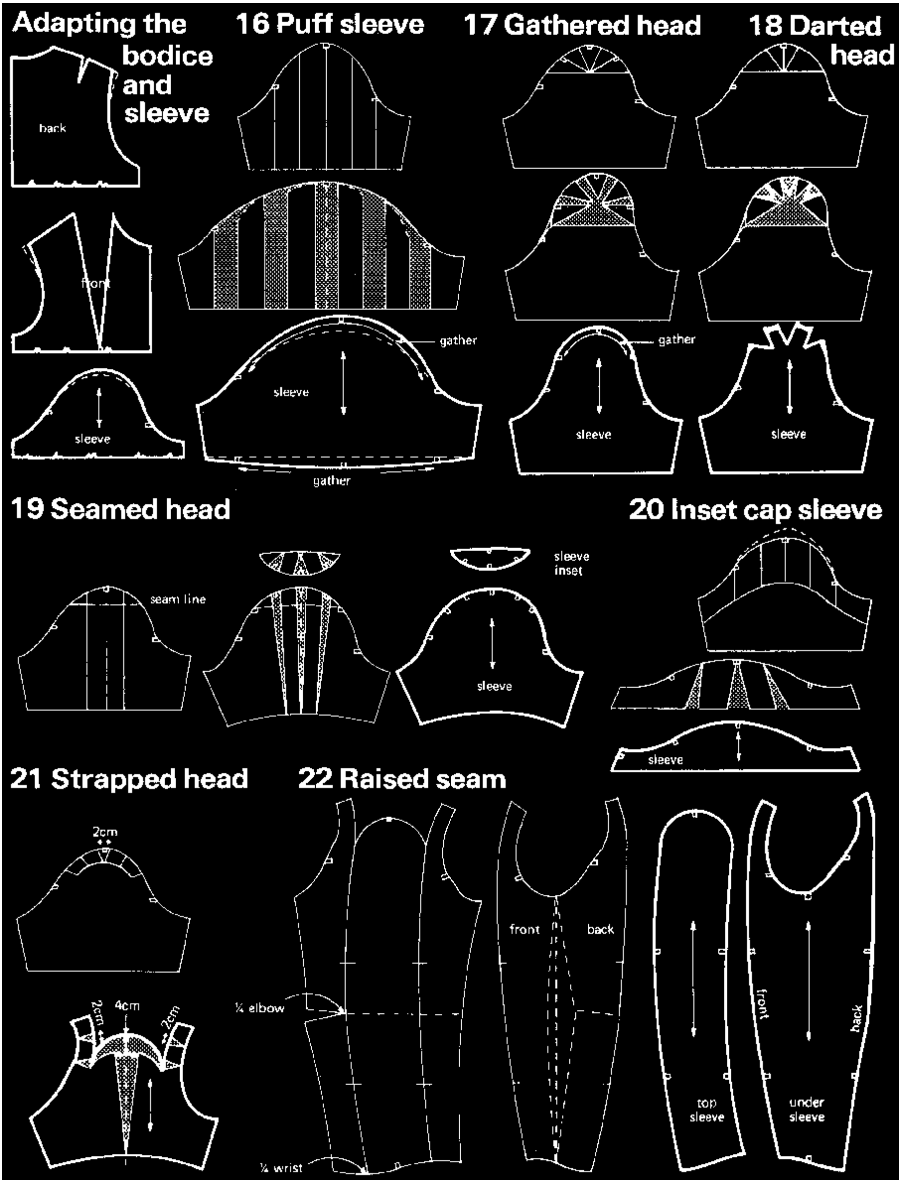
21 Strapped head

Trace short sleeve. Draw strap approx. 3 cm wide, divide into four sections. Take 2 cm ease from sleeve head. Cut up strap lines and centre line, open out as shown.

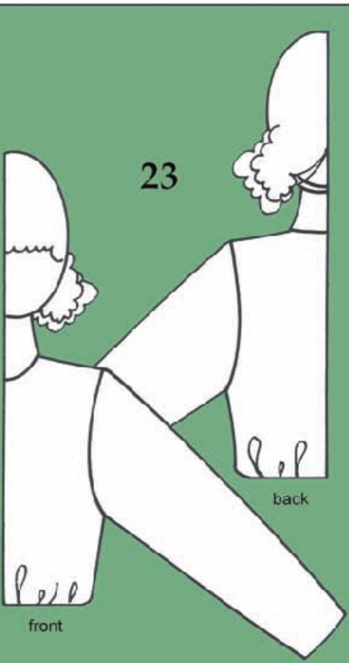
Raise sleeve head 4 cm.

22 Raised seam

Trace semi-fitted sleeve with a strapped head. From strap, drop lines to quarter elbow line, then to quarter wrist line. Cut out, cut up lines. Trace centre section. Close back dart. Join outer sections of sleeve at underarm and wrist. Shape in front seam 1 cm.


Adapting the bodice and sleeve
back
front
sleeve
16 Puff sleeve
gather
sleeve
gather
17 Gathered head
gather
sleeve
18 Darted head
sleeve
19 Seamed head
seam line
sleeve
sleeve inset
20 Inset cap sleeve
sleeve
21 Strapped head
2cm
2cm
4cm
2cm
22 Raised seam
¼ elbow
¼ wrist
front
back
top sleeve
under sleeve
front
back

23



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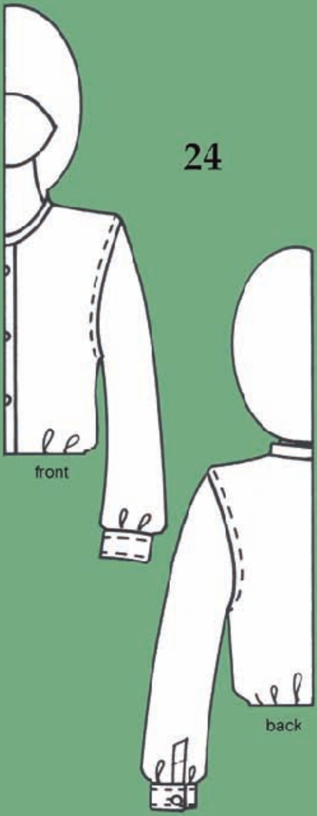

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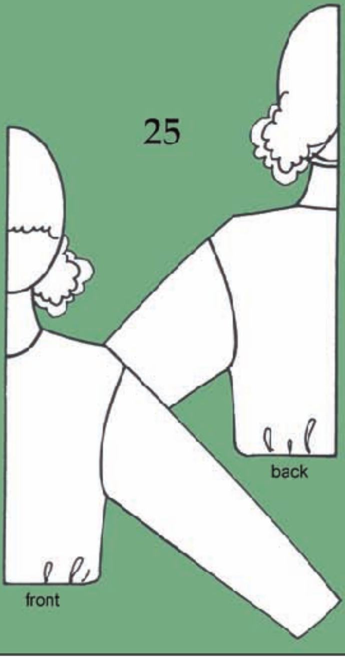


23 Lowered armscye

For an easy fitting body and armscye shape, complete this adaptation for the lowered armscye before continuing with any further adaptation.

Body section Trace body section of block required; cut up side seam, open 4 cm; draw new side seam down centre. Lower scye depth line 2.5 cm.

Mark 1 and 2 on each scye depth line and 3 and 4 at sleeve pitch points.

Draw in new armscye shape as shown.

Sleeve Trace one-piece sleeve block.

Draw a parallel line below armscye depth, the distance is half the measurement 1–2.

Mark points 5 and 6 at front and back pitch points.

Draw the curve 5–7 to new armscye depth line, the curve should equal the measurement of the curve 3–2.

Draw the curve 6–8 to equal curve 4–2.

Draw underarm seam, narrow at wrist if required.

Note The amount the block is widened and the armscye lowered can be varied, but proportions must remain constant.

24 Easy fitting 'shirt' armscye

Complete adaptation for lowered armscye. Mark points 2, 3, 4, 5, 6.

Body section Extend the shoulder approx. 2.5 cm, raise shoulder 0.5 cm.

3–9 and 4–10 half the measurement of the shoulder extension.

Draw new shoulder and armscye shape.

Sleeve Mark point 11 at sleeve head.

11–12 amount shoulder is extended.

5–13 half the measurement 3–9.

6–14 half the measurement 4–10.

Draw in new sleeve head from 13–14.

25 Dropped shoulder with

lowered armscye

Construct as for shirt armscye. If the shoulder extends more than 2.5 cm it is usually necessary to widen the sleeve.

Mark points 15 and 16 at shoulders.

13–12 should equal 9–15 plus 0.5 cm.

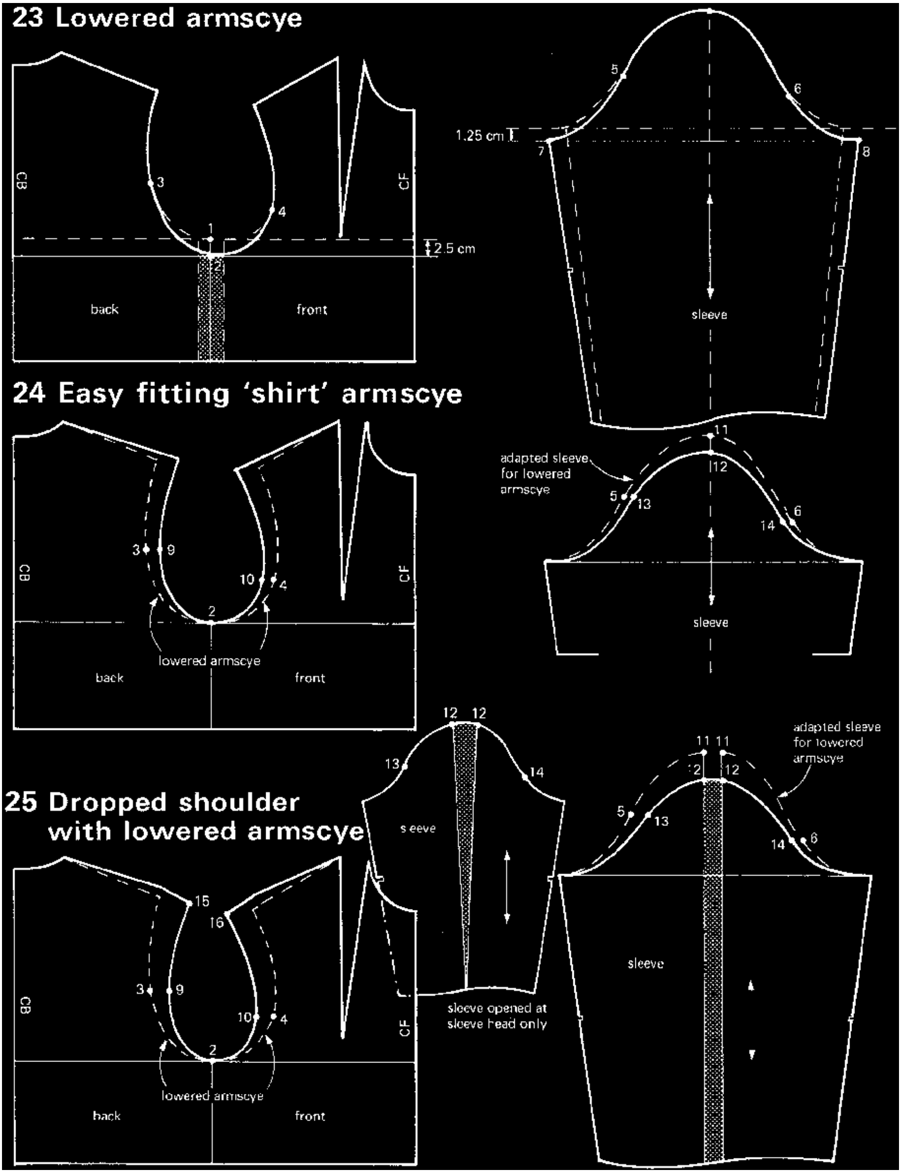
14–12 should equal 10–16 plus 0.5 cm.

If sleeve requires widening, cut up centre line and open required amount. It is possible to open the sleeve at the sleeve head only.

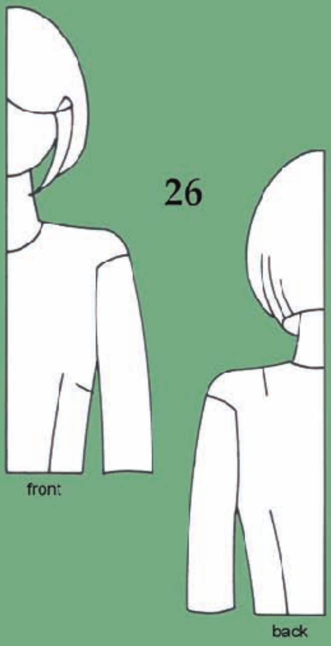
23 Lowered armscye

24 Easy fitting 'shirt' armscye

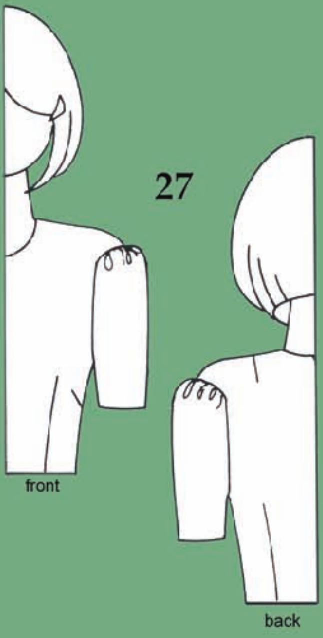
25 Dropped shoulder with lowered armscye


CB
CF
1
2
3
4
2.5 cm
back
front
1.25 cm
5
6
7
8
sleeve
adapted sleeve for lowered armscye
11
12
13
14
9
10
lowered armscye
15
16
sleeve opened at sleeve head only

26



27



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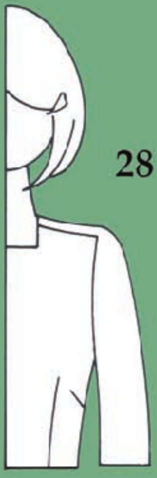

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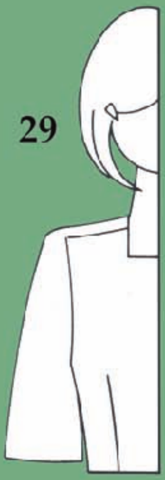
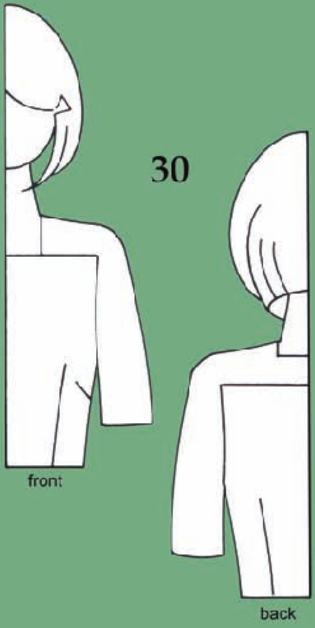


30



26 Dropped shoulder

Trace bodice and sleeve blocks. Mark balance points 1, 2, 3, 4. Extend shoulder to shape required. Mark balance points 5 and 6.

Make 7–3 equal the distance 1–5.

Make 8–4 equal the distance 2–6.

9 is down from the sleeve head, the amount shoulder is extended.

Draw sleeve head 7, 9, 8.

Widened Raise outer shoulders 1 cm. Widen centre sleeve 2 cm. Check the fit of the sleeve head.

27 Dropped shoulder with puff sleeve

Trace round bodice and short sleeve block. Adapt for a dropped shoulder. Divide sleeve into four sections and open required amount. Overlap each section 0.5 cm at bottom.

Raise sleeve head for extra fullness.

28 Extended

sleeve

Trace round bodice and straight sleeve block to required length. Rub out back shoulder dart and remove 1 cm from back shoulder at armscye edge. Draw in neckline. Draw in shoulder strips 2.5 cm wide on back and front. Mark centre line of sleeve, extend it at the top.

Place back and front shoulder strips to this line.

Trace round, cut out.

29 Flared extended sleeve

Diagram shows flared sleeve.

30 Extended sleeve with yoke

Trace round bodice and short sleeve block. Cut up centre line of sleeve.

Draw neck. Draw yoke lines (maximum 12 cm from top of block), drop back yoke line 1 cm from dart to armscye. Raise shoulder 1.5 cm at armscye edges.

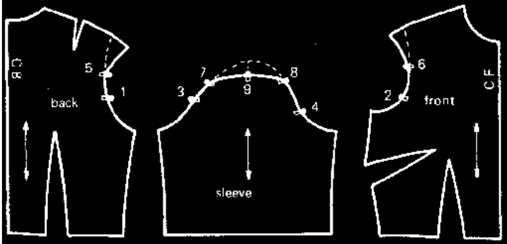
Place sleeves to bodices, match balance points, sleeve heads touching yoke line, and 1 cm from new shoulder points.

Trace round yoke and sleeve combined. Cut out, close back dart.

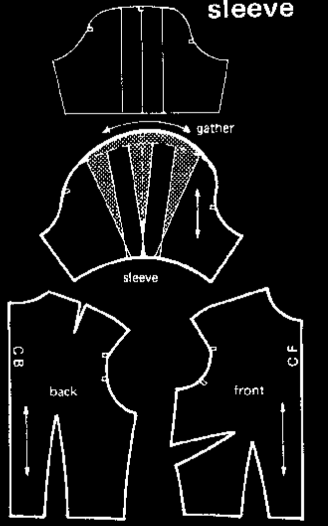
Trace round lower bodices.

One-piece sleeve Draw vertical line, place sleeves together at vertical line, to make shoulder dart.

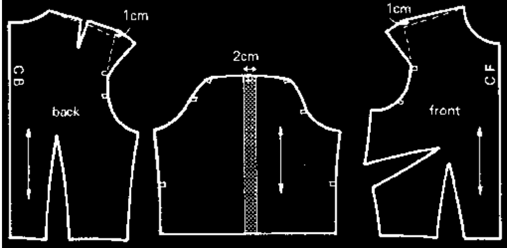
26 Dropped shoulder


C B
back
5
1
3
7
9
8
4
sleeve
6
2
front
C F

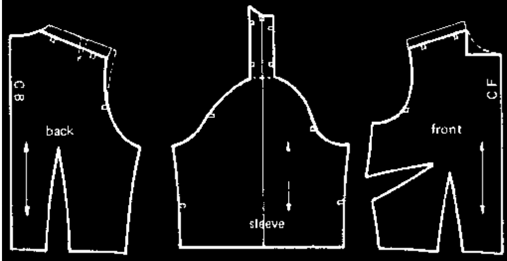
27 Dropped shoulder with puff sleeve


gather
sleeve
C B
back
front
C F

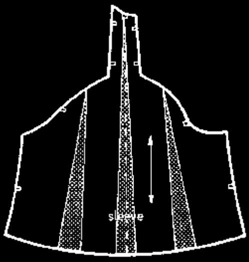
Widened


1cm
C B
back
2cm
1cm
front
C F

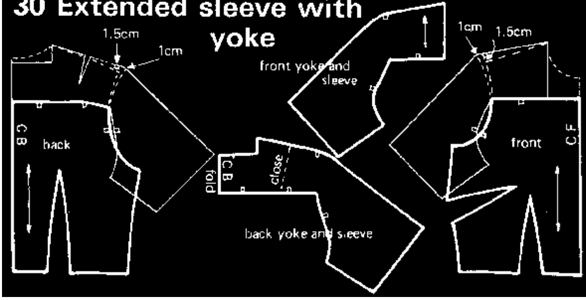
28 Extended sleeve


C B
back
sleeve
front
C F

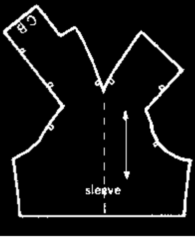
29 Flared extended sleeve



30 Extended sleeve with yoke


1.5cm
1cm
C B
back
front yoke and sleeve
fold
C B
close
back yoke and sleeve
1cm
1.5cm
front
C F

One-piece sleeve



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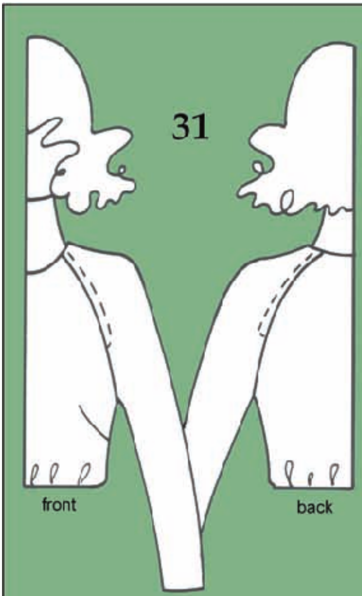

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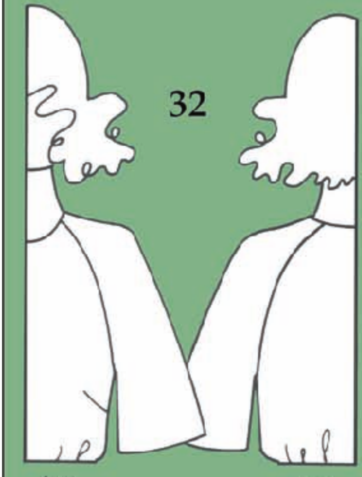

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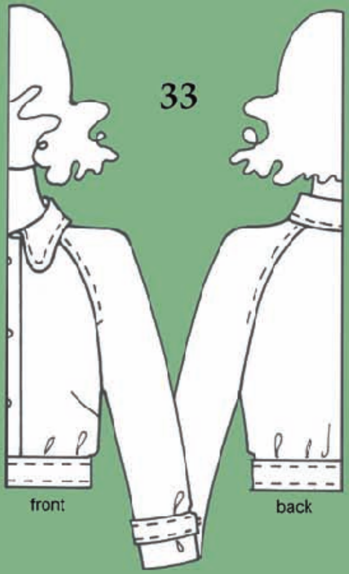

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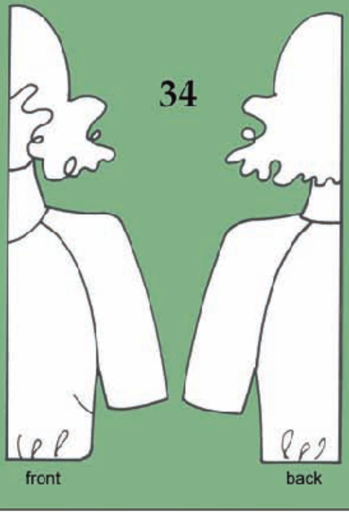


31 Basic raglan sleeve

Trace round bodice block required and one-piece sleeve block. Take 1 cm off front shoulder line; add 1 cm to back shoulder line. Mark points 1 and 2, 3 cm in from new shoulder points. Place any back shoulder ease into dart. Move front balance points forward 3 cm. Mark balance points 3 and 4.

Join 1–3 and 2–4 with a curved line. Cut away sections.

One-piece sleeve Draw centre line of sleeve 1 cm forward. Mark point 5, 2 cm down from sleeve head.

Place sections to sleeve matching balance points, place shoulder points to sleeve head. Close back dart.

Trace round making a slightly shaped shoulder line to point 5.

Two-piece sleeve Divide sleeve at centre line, add 1 cm to each centre line; curve in to point 5.

32 Flared raglan sleeve

Divide one-piece sleeve into four sections. Cut, open required amount.

33 Deep raglan sleeve

Trace round bodice block required and one-piece sleeve block. Place any back shoulder ease into a dart.

Add 2 cm to each bodice side seam.

Mark 4 at original front pitch point.

Use directions for classic raglan, but curve raglan lines below armscye line. Mark points 6, 7, 8, 9.

Sleeve Place sections to sleeve as above, note the way the underarm pieces lay on the sleeve, match balance points.

Draw a line below armscye line half the distance the bodice armscye has been lowered.

6–10 = 6–8, 7–11 = 7–9.

Join with curved lines. Cut out.

Draw straight lines from midway between 6–10 and 7–11 to 4 cm below underarm point.

Cut up the lines and open out 4 cm.

Trace round.

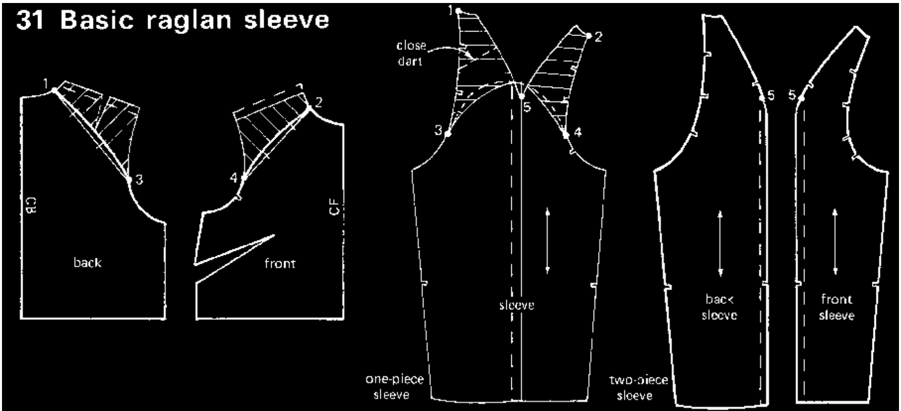
For two-piece sleeve follow directions for basic raglan two-piece sleeve.

34 Raglan with square shoulder

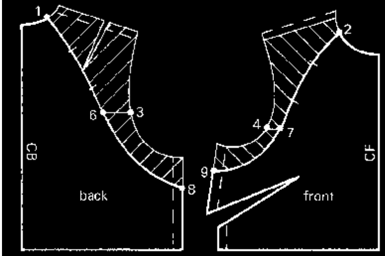
Draw lines from shoulder notch to raglan lines; open approx. 1.5 cm.

Raise shoulder approx. 1 cm.

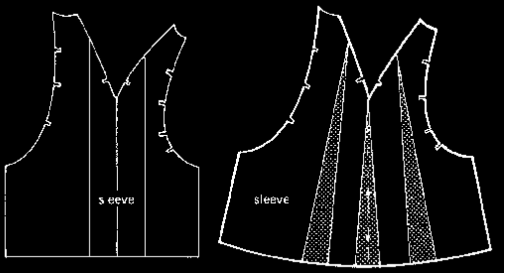
31 Basic raglan sleeve


1
close dart
2
3
4
5
CB
CF
back
front
sleeve
one-piece sleeve
two-piece sleeve
back sleeve
front sleeve

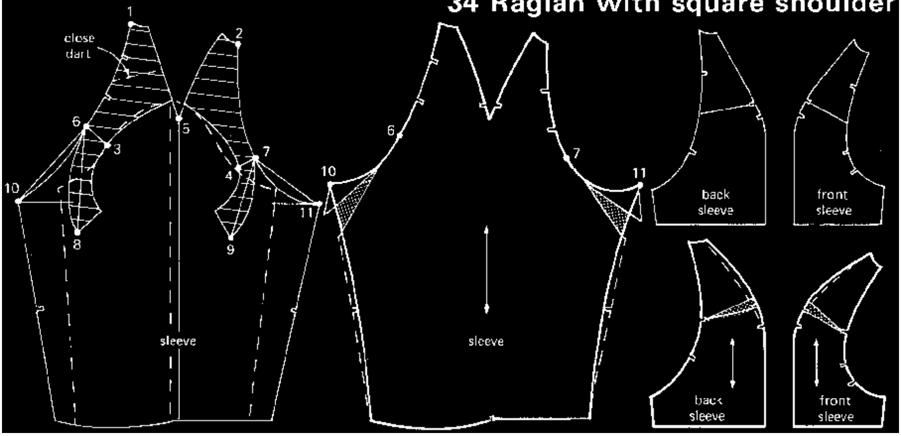
33 Deep raglan sleeve


1
2
3
4
6
7
8
9
CB
CF
back
front

32 Flared raglan


s eeve
sleeve

34 Raglan with square shoulder


1
close dart
2
3
4
5
6
7
8
9
10
11
sleeve
back sleeve
front sleeve

61

62

The shaped kimono blocks

Kimono sleeves

14–20 the measurement 0–7; join 20 to wrist point 21.

20–22 6

cm.

Kimono blocks can be used for designs that vary

20–23 6 cm; join 22–23 with a curve.

from close fitting shapes to easier fitting shaped

17–24 1.5 cm; join 18–24 and 24–25 at wrist point.

garments. The kimono adaptations in this chapter

Transfer bust dart to position required.

demonstrate designs that still retain the bust dart,

using the close fitting block, the easy fitting block

36 Close

fitting kimono block

or the overgarment blocks.

For kimono designs based on a simple shape

Trace round close fitting bodice block and one-piece without darting see page 142 which demonstrates sleeve block. Divide sleeve down centre line.

kimono shapes created by flat cutting with no bust

Construct as basic kimono block with the following

dart shaping.

alterations: 0–7 and 14–20 quarter measurement 0–1

minus 0.5 cm. Draw a line 8 cm long from centre of

35 Basic

kimono

block

underarm (directed towards the neck).

Gusset Draw a horizontal line; mark points 1 and Trace round back and front sections of easy fitting 2, 13 cm apart. Draw a vertical line midway between

bodice block or overgarment block as required.

1 and 2, draw lines from 1 and 2, 8 cm long, to touch Trace sleeve block, narrow underarm seam at wrist if the vertical line above and below. When the block is

required.

completed transfer bust dart to required position.

Back Mark points 0 and 1 on side seam; square For waist shaping refer to page 29.

out.

1–2 3.5 cm; square up to 3.

37 Easy

fitting kimono block

Mark 4 at shoulder point, 5 at neck point.

Divide the sleeve block down the centre line.

Use the easy fitting bodice block or overgarment

Place back sleeve head to touch shoulder point 4 and

block.

underarm of sleeve to touch line 2–3. Mark point 6.

Construct as for basic kimono block with the

0–7 one third the measurement 0–1 minus 0.5 cm.

following minor alterations.

Join 7 to wrist point 8.

Add 2.5 cm to the side seam and mark points 0 and 1

7–9 6

cm.

and 13 and 14 on the new side seams.

7–10 6 cm; join 9–10 with a curve.

Make 0–7 one third the measurement 0–1 plus

4–11 1.5 cm; join 5–11 and 11–12 at wrist point.

1.5 cm.

Front Transfer bust dart from shoulder to waistline.

Mark points 13 and 14 on side seam.

Shoulder adaptation

13–15 3.5

cm.

The shoulder line can be brought forward to give a

14–16 3.5 cm; join 15–16.

good line at shoulder. For this adaptation the basic

Mark point 17 at shoulder point, 18 at neck point.

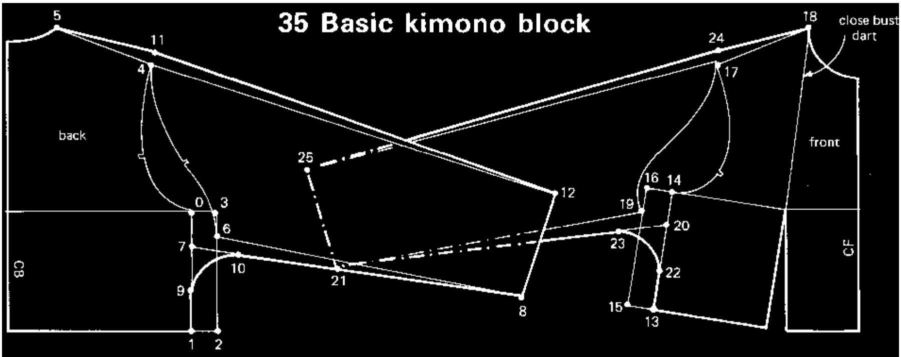
block is adapted before drafting a kimono block.

16–19 the measurement 3–6 on back section. Place **Body section** Take 1 cm off front shoulder line; underarm of front sleeve to point 19 and the sleeve add 1 cm to back shoulder line.

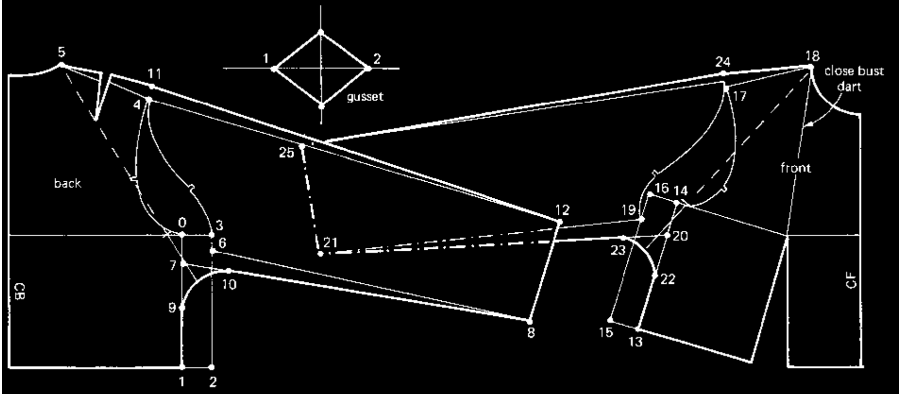
head to shoulder (it will rise above shoulder point).

Sleeve Draw centre line of sleeve 1 cm forward.

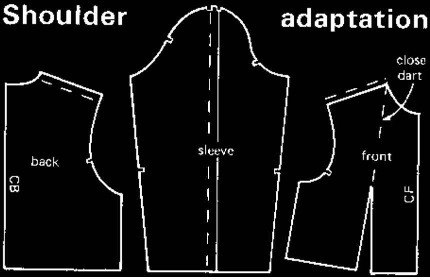
35 Basic kimono block

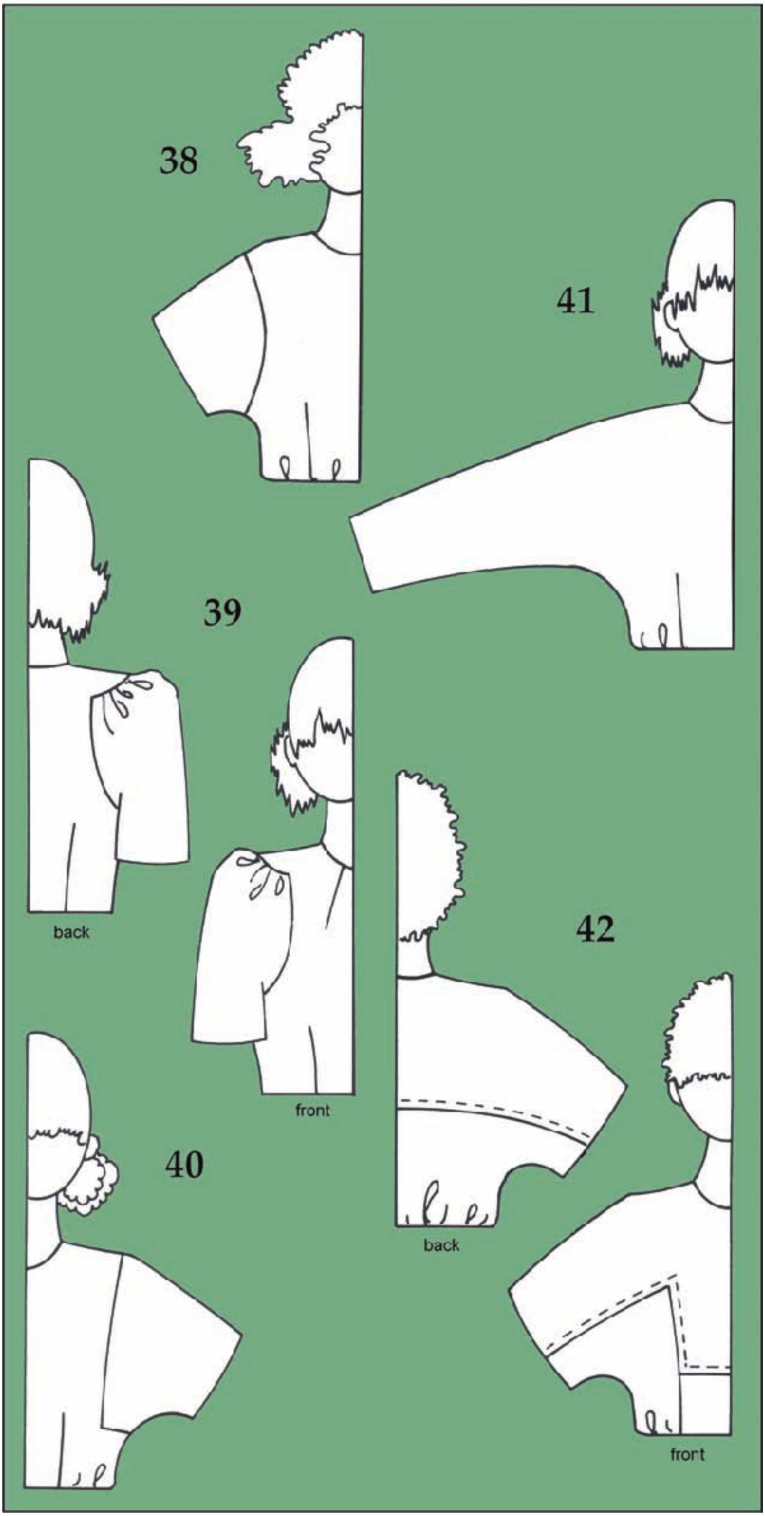

5
11
4
back
24
18
close bust dart
17
front
25
16
14
12
0
3
19
6
20
7
23
CF
CB
10
21
22
9
15
8
13
1
2

36 Close fitting kimono block


1
2
gusset
5
11
4
24
18
close bust dart
17
25
back
front
16
14
12
19
0
3
6
20
23
21
7
22
10
CF
CB
9
8
15
13
1
2

Shoulder adaptation


close dart
back
sleeve
front
CB
CF


38
41
39
back
front
42
40
back
front

38 Dolman

sleeve

Trace round kimono block required; mark points 10 and 23.

Draw in armscye shape to centre of underarm curve (the distance from shoulder notch should be the same on back and front sections).

Remove shaped sections (1.5 cm wide) two thirds length of front armscye, three quarters length of back armscye. Mark balance points at centre of sections. Draw lines from balance points to points 10 and 23.

Cut off sleeve sections, join at centre.

Cut up gusset lines and open 4 cm.

Trace sleeve, raise sleeve head 0.5 cm.

39 Shaped

sleeve

Example shows adapted dolman sleeve based on close fitting kimono block. Construct dolman sleeve with shaped armscye required.

Divide top edge of sleeve into four sections and open amount required.

Raise sleeve head approx. 1.5 cm.

Direct back shoulder dart to armscye shaping, close dart.

40 Square armscye

Trace round kimono block required.

Draw in square armscye to centre of underarm curve.

Remove shaped sections from armscye as for dolman sleeve.

Draw lines from balance points to centre of underarm curve.

Complete sleeve as for dolman sleeve.

41 Batwing

Trace kimono block required.

Draw line from centre of underarm curve to neck.

Cut along line, open required amount.

Redraw underarm curve.

42 Kimono style with yoke

Trace round kimono block required.

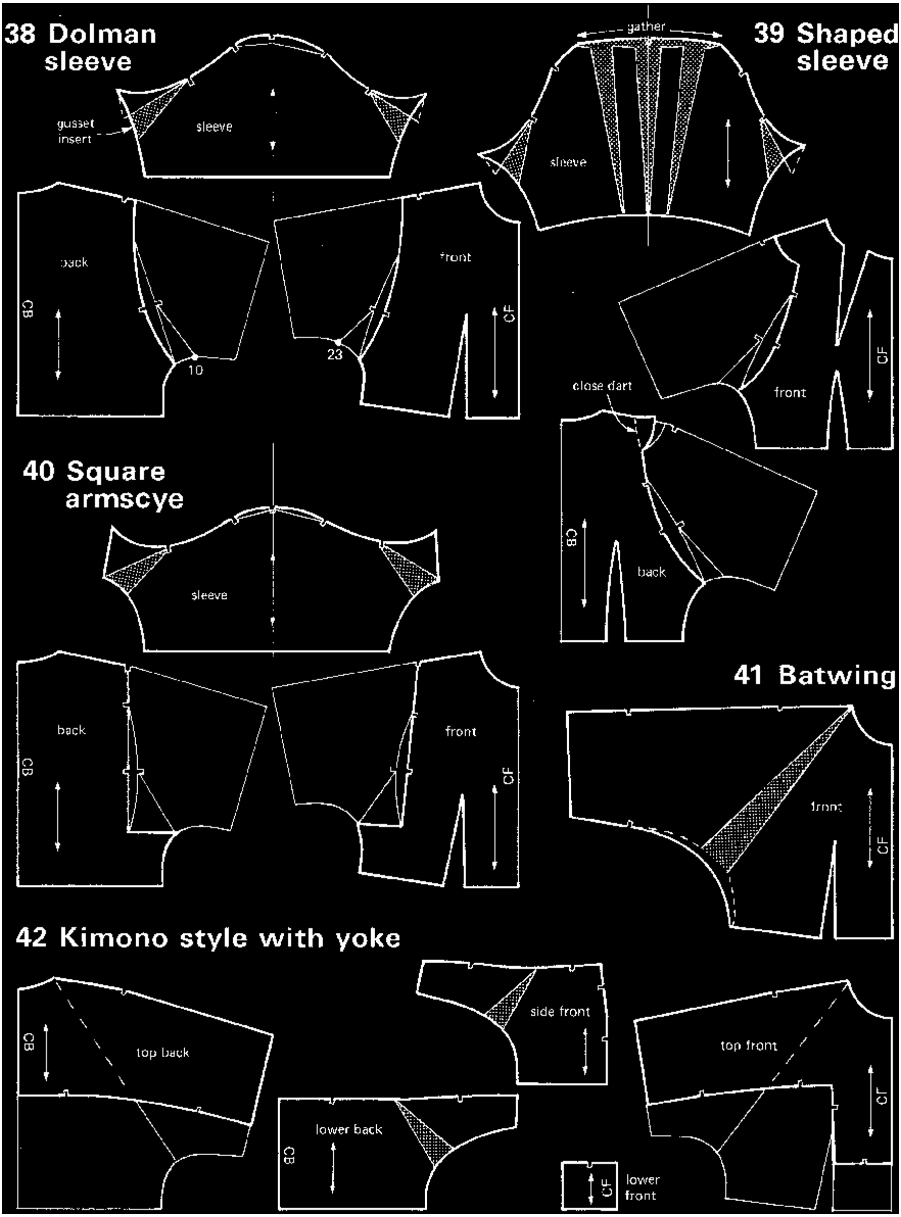
Draw yoke lines, extend down sleeves.

Draw in lines from underarm to yokes (directed towards neck point).

Trace round each pattern piece.

Insert 4 cm gusset shape at underarm.

Note Designs with extra body fullness or based on the wide kimono block do not require a gusset insert.



38 Dolman sleeve

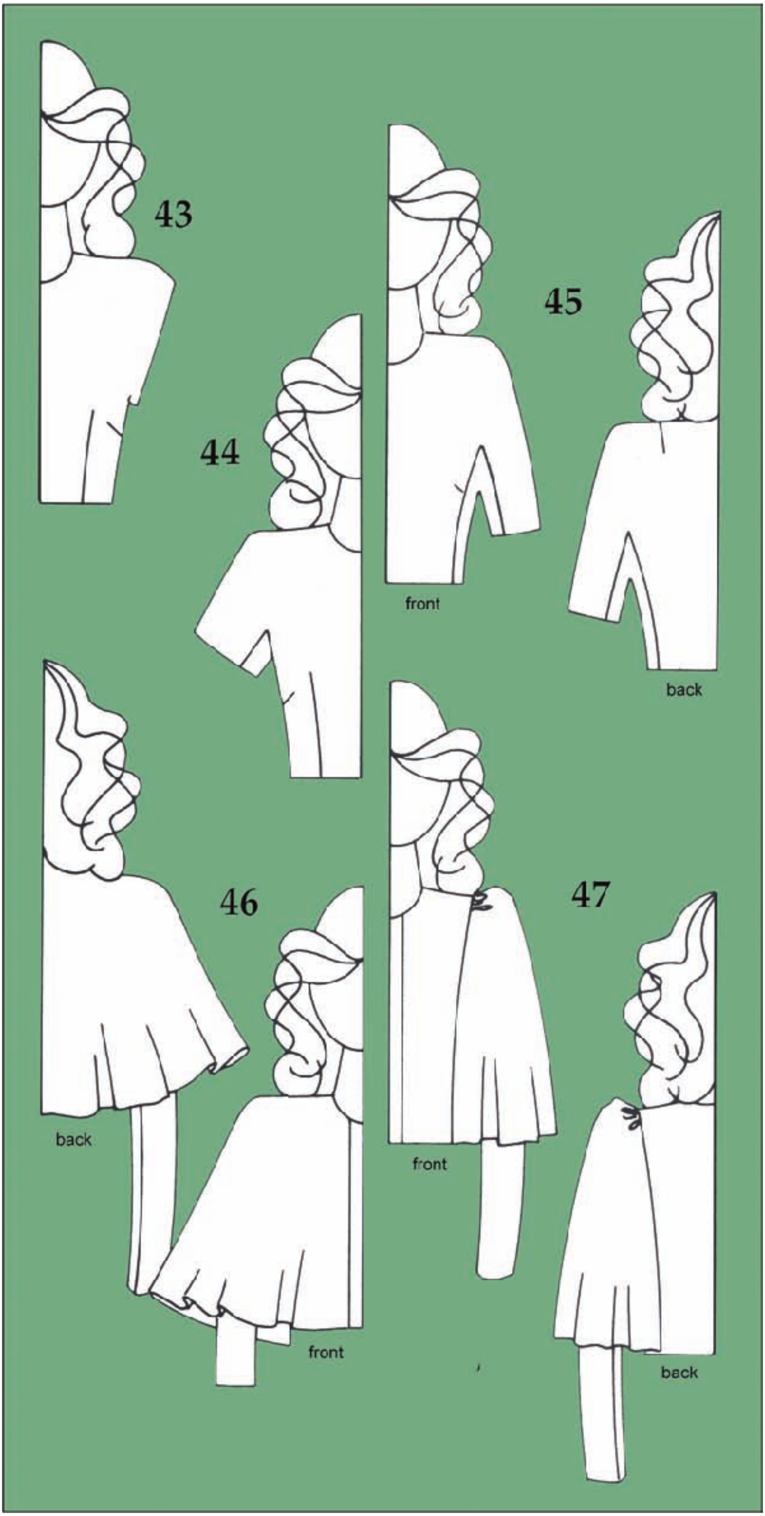
39 Shaped sleeve

40 Square armscye

41 Batwing

42 Kimono style with yoke

gusset insert
sleeve
back
CB
10
23
front
CF
gather
sleeve
front
CF
close dart
CB
back
sleeve
back
CB
front
CF
front
CF
CB
top back
side front
top front
CF
lower back
CB
CF
lower front


43
44
45
front
back
46
back
front
47
front
back

43 Cap sleeve

Trace block required, raise shoulder 1 cm. Mark balance points 3 cm below armscye. Extend shoulder to width required. Draw in outer edge of cap with a smooth line.

44 Cap sleeve with gusset

Trace kimono block required with short sleeve (shoulder length approx. 32 cm), without curve at underarm. Widen sleeves 1 cm. Draw a line from underarms (directed at centre shoulders), mark points 1 and 2, 7 cm along line. Mark points 3 and 4, 4.5 cm in from sleeve underarm seam. Cut out sections.

Gusset Draw vertical line, place underarm seams of sections to this line. Join 1 to 2. Construct a triangle shape equal to the one formed above the line. Cut out.

45 Cap sleeve with panel

Construct ‘cap sleeve with gusset’ pattern (no waist darts). Transfer bust dart to neckline. Draw in panel lines. Draw waist darts on them.

Cut away the four sections. Close neck dart, cut out bodice patterns.

Panel with gusset Draw

round

gusset. Place sections 1, 2, 3, 4 round gusset as shown. Trace round.

46 Flared cape

Trace kimono block required.

Transfer bust dart to neckline. Draw in cape. Mark front strap line and cut away. Drop vertical lines from back neck and shoulder; from front shoulder and bust point.

Cut out. Cut up lines.

Close bust dart, open other lines to make the same amount of flare. Trace round.

47 Fitted cape

Draft a kimono pattern from block required, make sleeve overlap side seam 2.5 cm. Draw in panel lines.

Draw in cape.

Divide cape sleeve head into sections.

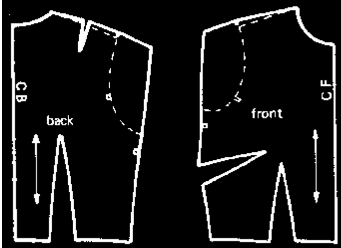
Cut off panels.

Cut up sleeve head sections.

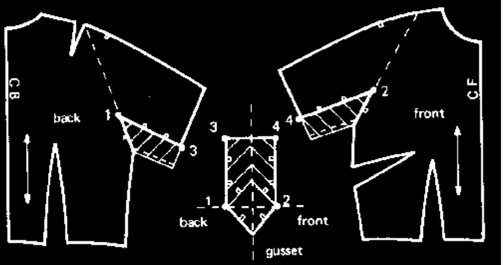
Draw vertical grain line.

Place centre sleeve lines to this line, raise head sections as shown. Trace round.

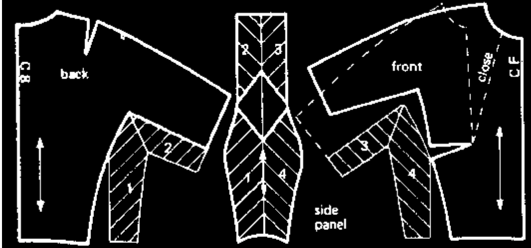
43 Cap sleeve


CB
back
front
CF

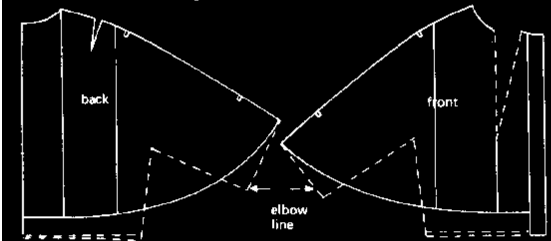
44 Cap sleeve with gusset

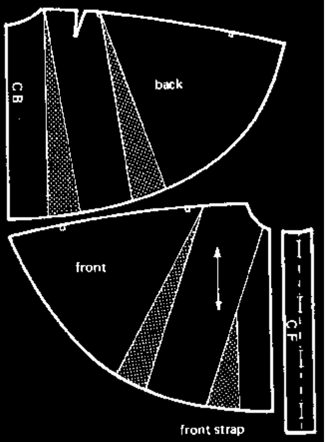

CB
back
1
3
3
4
1
2
back
front
gusset
4
2
front
CF

45 Cap sleeve with panel

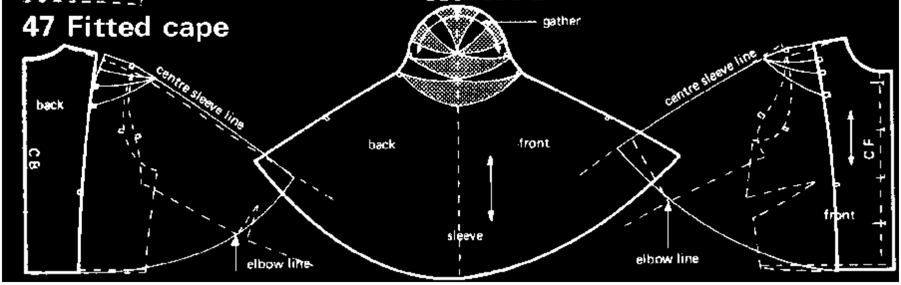

CB
back
2
1
2
3
1
4
side
panel
front
close
CF
3
4

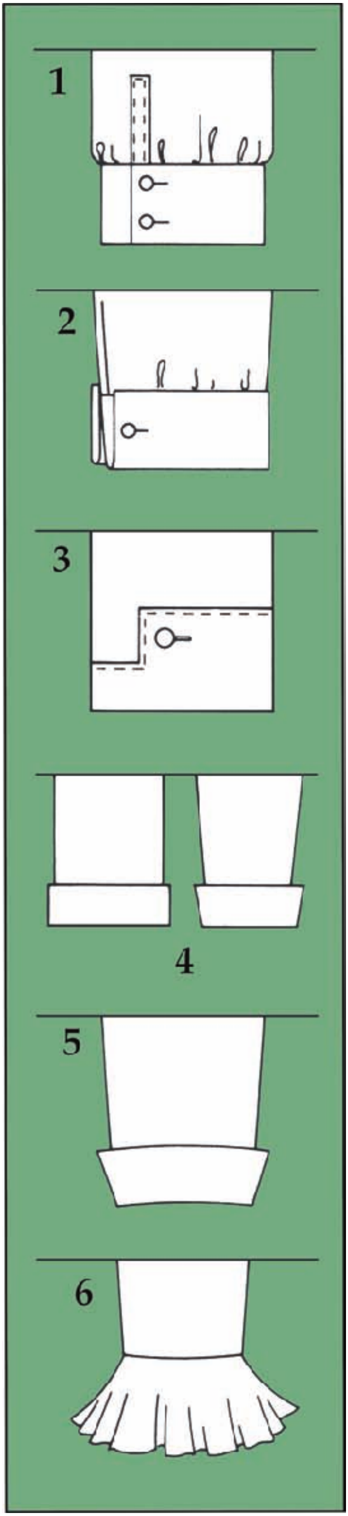
46 Flared cape


back
front
elbow
line

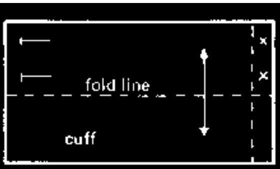

CB
back
front
CF
front strap

47 Fitted cape

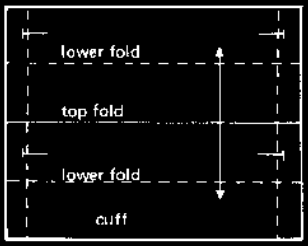

back
CB
centre sleeve line
elbow line
gather
back
front
sleeve
centre sleeve line
elbow line
front
CF


1
2
3
4
5
6

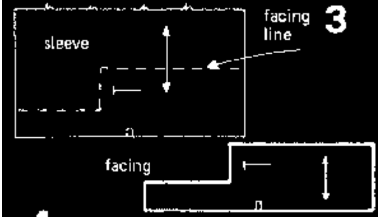
1


fold line
cuff

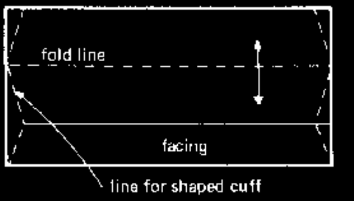
2


lower fold
top fold
lower fold
cuff

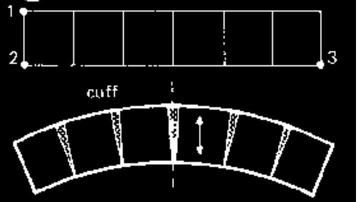
3


sleeve
facing line
facing

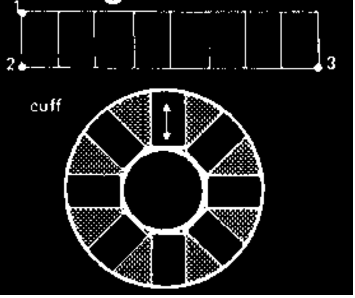
4


fold line
facing
line for shaped cuff

5


cuff

6


cuff

Cuffs

Shirt cuff

Draw rectangle twice the depth of finished cuff; width = wrist measurement plus 5 cm, plus 1.5 cm underwrap for buttons. Mark buttonholes and button points.

Double shirt cuff

Draw cuff with buttonstand at both ends. Mark buttonholes. This cuff is drawn four times the depth of the finished cuff. Mark fold lines as shown.

Sleeve facing

Trace round lower edge of sleeve. Lower edge of sleeve must be even. Draw in line of facing on sleeve.

Wheel through onto new paper. Cut out and mark buttonhole.

Straight cuff with facing

Draw a rectangle, width of sleeve

bottom and twice the depth of finished cuff.

Add a facing to lower edge (depth approx. 3 cm).

Shaped cuff

Draw a rectangle 1–2 = depth of finished cuff, 2–3 = width of bottom of sleeve.

Divide into six sections.

Cut out, open out at top edge to width required at top of cuff.

Trace round, cut out.

Frilled cuff

Draw a rectangle, 1–2 = depth of finished cuff; 2–3 = width at the bottom of sleeve.

Divide into eight sections.

Open out the sections until they make a complete circle.

Trace round, cut out.

PART ONE: CLASSIC FORM CUTTING

5 Constructing collars

Collars – general principles

70

Flat collars

70

1 Peter Pan (flat) collar

70

2 Eton collar

70

3 Flat collar with low neckline and slight stand

70

4 Sailor collar

70

Standing collars

72

5 Mandarin collar

72

6 Standing straight collar

72

7 Polo collar

72

8 Convertible collar

72

9 Shirt collar

72

10 Wing

collar

72

Collars cut in one with the garment

74

Low revers

74

11 Rever

front

74

12 Classic roll collar

74

13 Changing the style line

74

14 Shawl

collar

74

15 High shaped collar

74

16 Hollowed

neckline

74

Collars with revers

76

17 Classic gents collar (tailored)

76

18 Classic reefer collar (tailored – double breasted)

76

19 Standard rever

76

20 Standard rever with concealed stand 76

21 Collar and rever with complete stand 76

22 Collar set away from the neck

76

23 Frilled collar

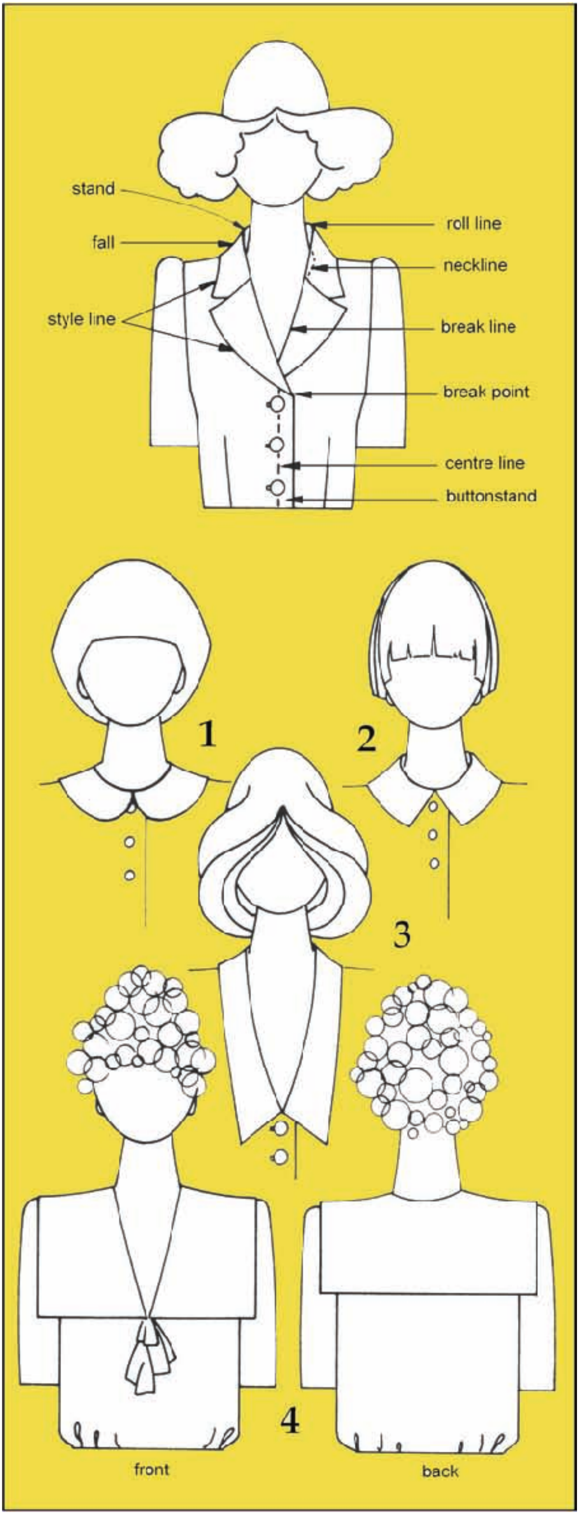
78

24 Frilled rever

78

25 Simple cowl collar

78


stand
fall
style line
roll line
neckline
break line
break point
centre line
buttonstand
1
2
3
4
front
back

Collars – General principles

Terms Used when constructing collars.

Neckline The line where collar is joined to neck.

Style line Outer edge of collar or rever.

Roll line The line where collar rolls over.

Stand Rise of the collar from neckline to roll line.

Fall Depth of collar from roll line to style line.

Break point Where the rever turns to form lapel.

Break line Line along which lapel rolls back.

Before drafting a collar Lower neckline if required, mark buttonline, buttonholes, buttonstand.

After drafting a collar Add 0.25 cm to outer edge of top collar and from point 1–2 as shown in diagram. This ensures that seam line of outer edge of collar will not show when made up, and the back neck of collar will sit properly. Add 0.5 cm for thick fabrics.

Special note Diagram opposite shows a principle that applies to the making of all collars. When drawing the style line, allow for depth of collar stand. Experiment on a dress stand or figure for final effects.

Collar types Collars fall into four basic groups: *flat collars* sit flat (or almost) around shoulders; *standing collars* stand up around the neck or stand, roll over, then fall; *collars cut in one with the garment; collars with revers,* separate collar and rever.

Flat collars

1 Peter Pan (flat) collar

Place shoulder of back bodice to shoulder of front bodice, neck points touching, outer shoulders overlapping by 2 cm.

Draw in collar shape. Wheel off collar.

2 Eton collar

Construct a Peter Pan collar. Divide collar into six sections. Cut out, cut up lines, overlap at outer edge 0.75 cm.

Trace round collar with a smooth line.

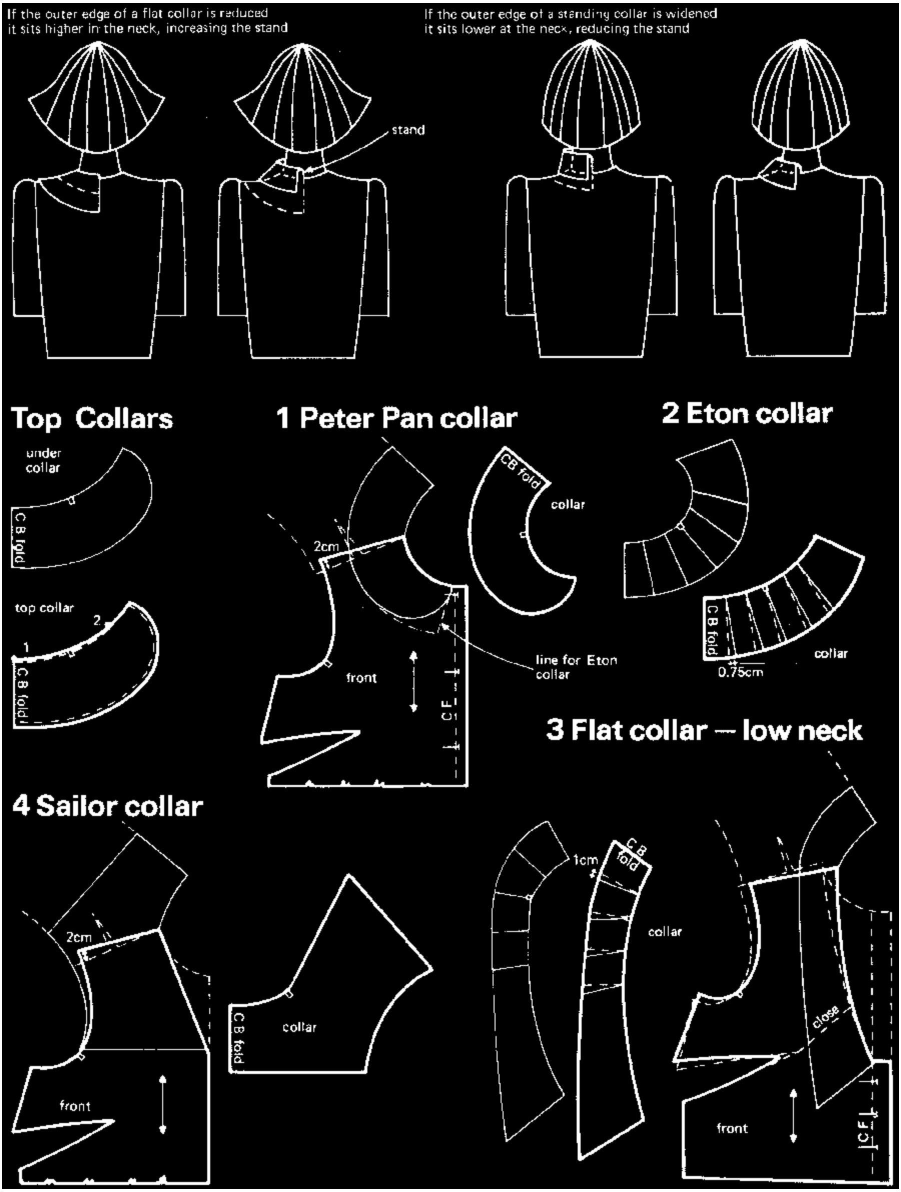
3 Flat collar with low neckline and slight stand

Trace front bodice, draw in neckline. Take 0.6 cm dart out of neckline (ref. Low revers, page 74).

Place back shoulder to front shoulder, neck points touching. Draw in collar. Wheel off collar. Divide into five sections, cut up lines, overlap 1 cm at outer edge of collar. Trace round collar.

4 Sailor collar

Place back bodice to front bodice as for Peter Pan collar. Draw in ‘V’ neckline. Draw in collar as shown. Wheel off pattern and cut out.


If the outer edge of a flat collar is reduced
it sits higher in the neck, increasing the stand
If the outer edge of a standing collar is widened
it sits lower at the neck, reducing the stand
stand
Top Collars
under collar
C B fold
top collar
1
2
C B fold
1 Peter Pan collar
2cm
front
CF
CB fold
collar
line for Eton collar
2 Eton collar
C B fold
collar
0.75cm
3 Flat collar – low neck
1cm
C B fold
collar
close
front
CF
4 Sailor collar
2cm
front
C B fold
collar

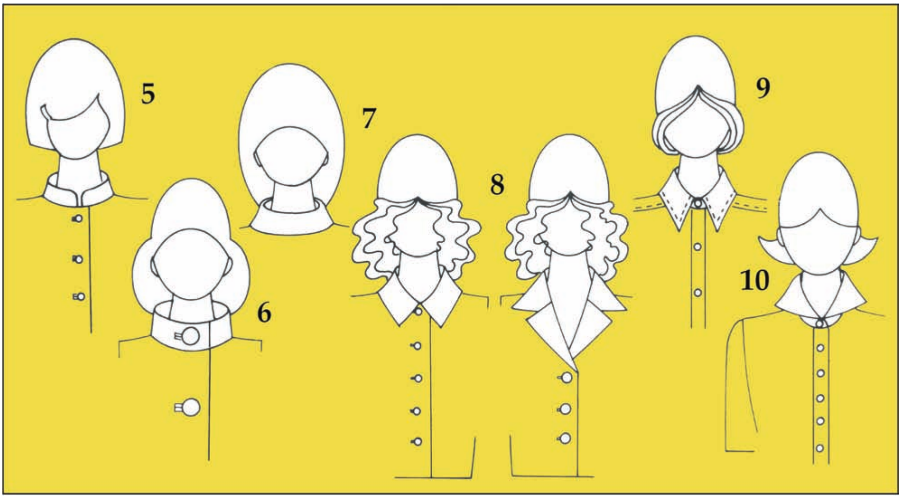
71

If the outer edge of a flat collar is reduced

If the outer edge of a standing collar is widened

it sits higher in the neck, increasing the stand

it sits lower at the neck, reducing the stand



Standing collars

Measure the neck If neckline requires lowering, 3 is three quarters distance 1–2.

complete this, then measure neckline. Standing

Shape neckline 0.5 cm up to 5. Shape to outer edge.

collars must be measured accurately with tape

Changing the style line Square up from 3 to 6. The upright (see diagram). Place back to front with style line can be changed from 6 as shown in diagram.

shoulders touching; measure from centre back to

Shaped collar – concealed stand Draft

convertible

centre front for half neck measurement.

collar. 1–7 = 3.5 cm, draw curved line from 7 to 3. Divide 1–3 into four sections. Cut out collar and stand. Cut up ***5 Mandarin***

collar

lines. Overlap stand at outer edge 0.2 cm on each line.

Open outer edge of collar 0.4 cm. Cut 0.6 cm from centre 1–2 full neck measurement, 2–3 approx. 4 cm. Draw back of collar. Trace collar and stand.

rectangle. Curve outer edges. Mark centre back.

Divide into six sections, cut out. Cut up four outer

9 Shirt

collar

lines, overlap 0.5 cm. Trace round.

Lower front neckline 0.5 cm (not shirt block).

6 Standing straight collar

1–2 = half neck measurement; square up.

1–3 = collar stand and depth measurement; square

Lower neckline approx. 1 cm at centre back and shoulders across.

and 2.5 cm at centre front. Measure new neckline.

1–4 = three quarters measurement 1–2; 2–5 = 0.5 cm.

Square both ways from 1. 1–2 half neckline measurement.

1–6 = half measurement 1–3 minus 1 cm; square

2–3 buttonstand; square up. 1–4 collar depth; square

across to 7.

across to 5. 3–6 = 1 cm; 5–7 = 1.5 cm; join 6–7.

7–8 = 0.75 cm; draw in collar outline from 3–8.

7–8 = measurement 2–3; join 2–8.

5–9 = buttonstand; join 8–9 and 4–9 with curves.

1–9 = half measurement 1–3; join 6–9 with a curve.

Mark buttonhole.

Separate stand Trace shirt collar. 6–10 = 0.75 cm.

7 Polo

collar

Shape line from 10 to line from 3. Trace collar and stand.

1–2 full neck measurement, 2–3 four times finished

Shaped shirt collar Trace shirt collar and stand.

depth of fall. Draw rectangle. Mark centre front, fold Divide, shape them as for convertible collar and stand.

line, roll lines. Cut collar on cross in woven fabrics.

10 Wing

collar

8 Convertible

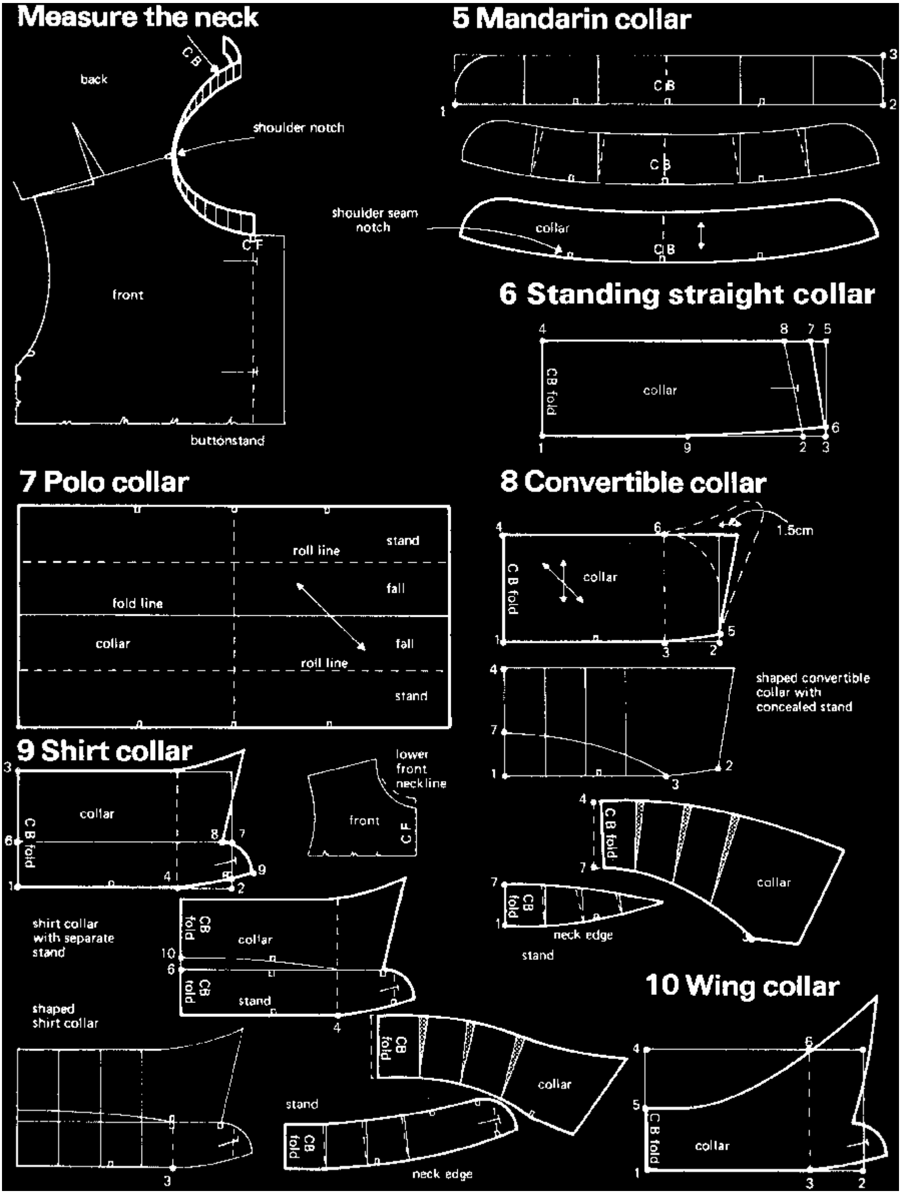
collar

Construct the rectangle and stand for a basic shirt

Construct rectangle 1–2 half neck measurement.

collar. Mark points 1, 2, 3, 4. 5 = half 1–4. Square up 1–4 = collar depth approx. 9 cm.

from 3–6. Draw in collar shape as shown.



Measure the neck

5 Mandarin collar

6 Standing straight collar

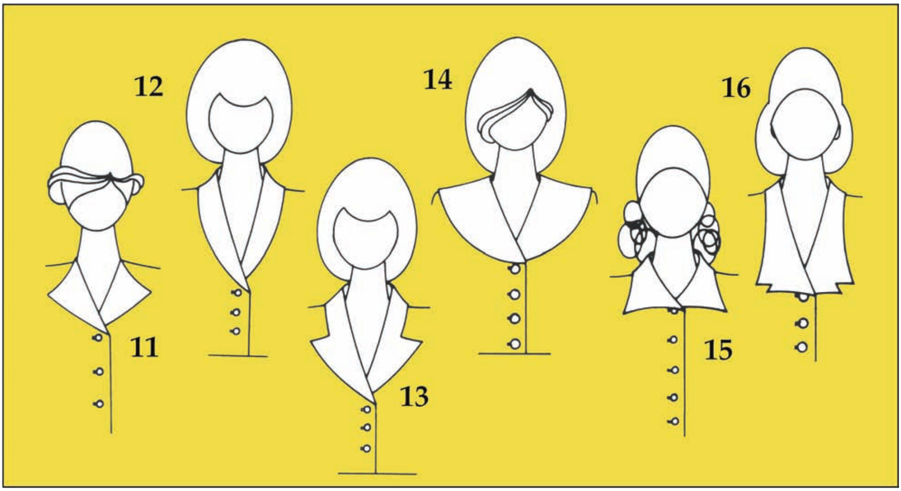
7 Polo collar

8 Convertible collar

9 Shirt collar

10 Wing collar

C B
back
shoulder notch
front
C F
buttonstand
1
2
3
C B
shoulder seam notch
collar
C B
4
8
7
5
C B fold
collar
6
1
9
2
3
stand
roll line
fall
fold line
collar
fall
roll line
stand
4
6
1.5cm
C B fold
collar
5
1
3
2
4
7
1
2
3
shaped convertible collar with concealed stand
4
C B fold
7
collar
7
CB fold
1
neck edge
stand
3
C B fold
collar
6
8
7
1
4
9
2
lower front neckline
front
C F
shirt collar with separate stand
CB fold
collar
10
6
CB fold
stand
4
shaped shirt collar
3
CB fold
collar
stand
CB fold
neck edge
1
4
6
5
C B fold
collar
1
3
2



Collars cut in one with the garment

Low revers

13 Changing the style line

Before drafting close fitting collars with low revers, The outer line of the roll collar can be changed in make 0.6 cm neck dart, transfer this to bust dart.

many different ways to produce new designs.

11 Rever

front

14 Shawl

collar

Trace round front bodice, mark buttonholes, add

Collars that are wide around the shoulders and back

buttonstand. Mark break point level with top

must have smaller swing (e.g. 3 cm) so that the outer buttonhole. Draw line from neck point to break edge becomes wider. Continue as for roll collar.

point. Draw rever shape on bodice.

Shawl collar with seam Draw a line from neck

Fold along break line. Wheel through rever shape.

point to centre of overlap at collar edge.

Unfold, trace round pattern, cut out. Trace off facing.

Separate back collar.

Add 0.25–0.5 cm to outer edge of rever facing.

Shape shoulder seam of front and back collar.

12 Classic

roll

collar

15 High shaped collar

Trace round front bodice (low revers – dart neck).

Trace round front bodice, mark buttonholes and

Mark buttonholes, add buttonstand. Mark point 1

buttonstand. Mark break point 1 level with top

at break point, mark neck point 2. Extend front

button. Mark 2 at neck point, 2–3 = 1.5 cm.

shoulder line. Place reversed back bodice to front

Draw dart parallel to break line as shown.

bodice at neck point. Swing back so that the outer

Draft roll collar, use point 3 as neck point.

shoulder edge overlaps extended line by 8.5 cm.

Draw in back of collar and shaped style line.

Mark back neck point 3.

Trace off facing and complete as for roll collar.

2–4 = 2 cm, 3–5 = 3 cm, 5–6 = 6 cm, 6–7 = 0.5 cm.

Draw in roll line 5–4 and break line 4–1.

16 Hollowed

neckline

Draw in style line from 7–1.

Facing Trace off facing. Allow 0.25–0.5 cm at outer Construct a classic roll collar draft. Draw in style edge of collar. Divide facing below rever as shown.

line, example shows design with notch. Draw line

Place lower half of facing on the straight grain of

from point 2 at neck to centre line 5 cm above top

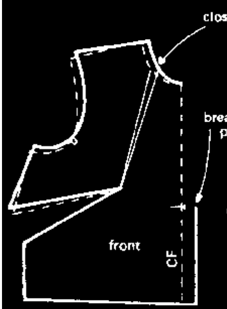
fabric, the top half can have the centre back line

buttonhole. Draw in 1.5 cm dart on this line. Trace

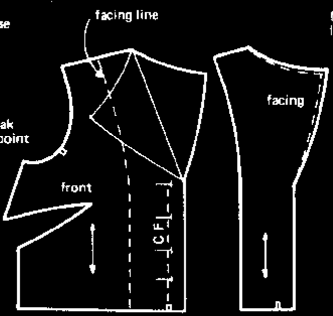
placed to a fold.

off facing including dart, complete as for roll collar.

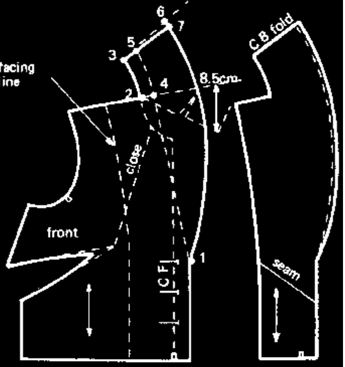
Low revers


close
break point
front
CF

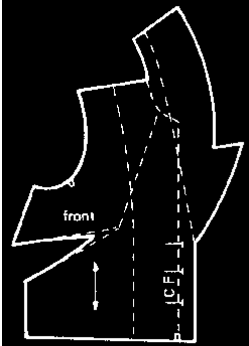
11 Rever front


facing line
front
CF
facing

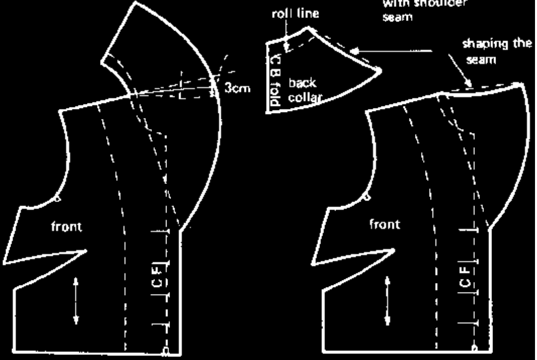
12 Classic roll collar


6
7
5
3
facing line
4
8.5cm
2
close
front
1
CF
C B fold
seam

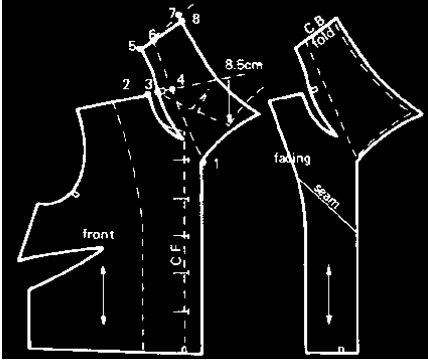
13 Changing the style line



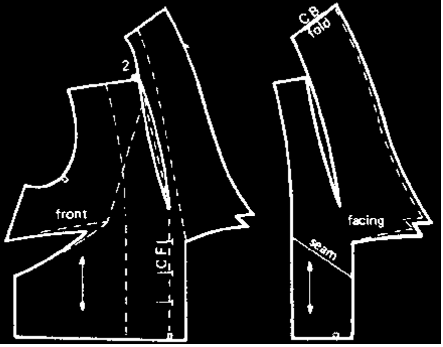
14 Shawl collar

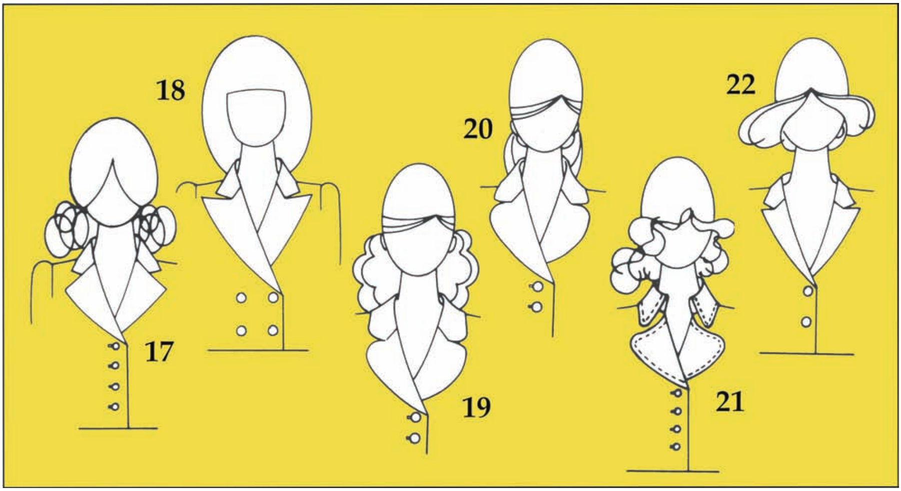

3cm
front
CF
roll line
shawl collar with shoulder seam
C B fold
back collar
shaping the seam
front
CF

15 High shaped collar


7
8
5
6
2
3
4
8.5cm
1
front
CF
C B fold
facing
seam

16 Hollowed neckline


2
front
CF
C B fold
facing
seam



Collars with revers

For low revers make 0.6 cm neck dart (page 74).

19 Standard

rever

Construct as for gents collar, but use existing

17 Classic gents collar (tailored)

neckline of block and join 7 to 1 in curve as shown.

Collar with lower stand Mark point 1 on roll line.

Trace round front bodice. Raise front neck 0.5 cm.

Divide collar between centre back and point 1 into

Mark point 1, square across, rub out existing

four sections, cut out, cut up lines, open 0.5 cm (extra neckline. Mark in buttonhole, add buttonstand.

for wider collars). Trace round pattern.

Extend shoulder line. 2–3 = 2 cm along the line.

Mark 4 at break point.

20 Standard rever with concealed stand

Join 4 to 3 with a dotted line, extend line. 3–5 = back neck measurement plus 1 cm.

Construct standard rever pattern, with collar. Draw

5–6 = 2 cm (6–3 is same measurement as 5–3). Square

in concealed stand midway between shoulder

a line across at right angles to the line 6–3.

balance point and roll line. Proceed as for shaped

6–7 = 3 cm, 6–8 = 5 cm. From 7 draw a line parallel to convertible collar (ref. 8 page 72).

6–3. 9 = 1.5 cm up from the line from 1.

Draw in neckline 2, 9, 1 and rever outline as shown

21 Collar and rever with complete stand

(check shape by folding along break line).

Construct a standard rever pattern with collar, but

Draw in collar 1, 9, 7, 8 and outer style line.

measurement 2–3 = 3 cm (or depth of stand

Draw in roll line from 6 to break line.

required).

Mark balance points on neck and collar.

Collar must meet rever at break line point 1.

Top collars and facings As under collars on tailored **Collar and stand** Trace collar, join 6 to 1 with garments are cut on the cross and shaped with the straight line, shape neck edge to point 9, 2.5 cm

iron, cut top collars from shaped under collar, add the down from 1.

extra amounts to outer edges (page 70). Add 0.5 cm to Proceed as for shaped shirt collar (ref. 9 page 72).

rever on facing from break point to collar point.

22 Collar set away from neck

18 Classic reefer collar (tailored –

Trace round front bodice, lower neckline required

double breasted)

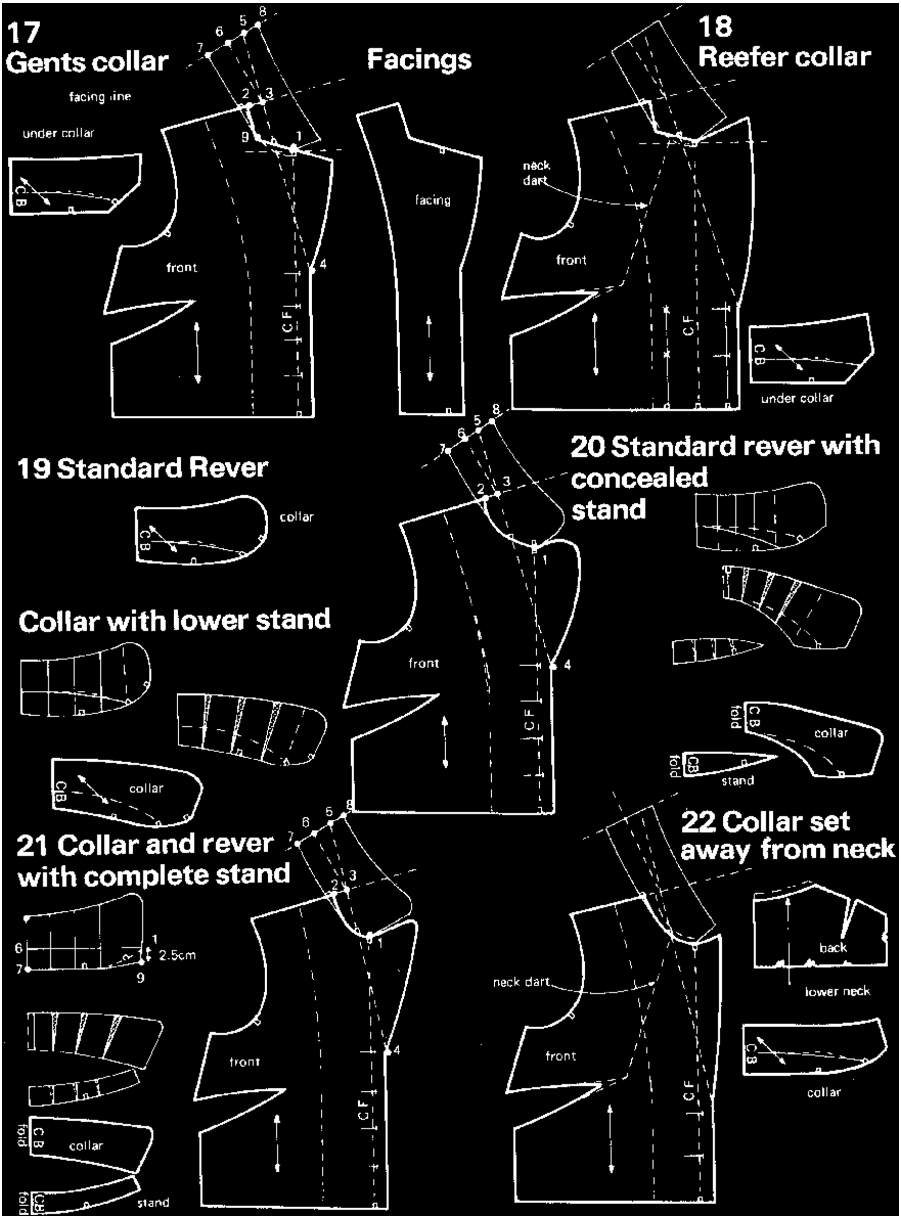
amount on front and back pattern. Construct

The construction is the same as for a gents collar.

standard rever on new neckline, with new back

Note the different shape at the top of the revers.

neck measurement.



17 Gents collar

Facings

18 Reefer collar

19 Standard Rever

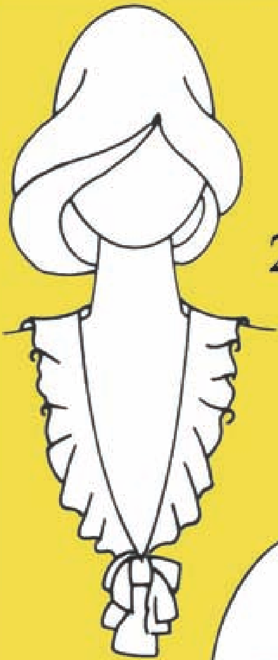
Collar with lower stand

20 Standard rever with concealed stand

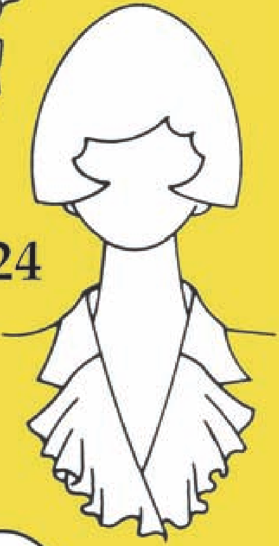
21 Collar and rever with complete stand

22 Collar set away from neck

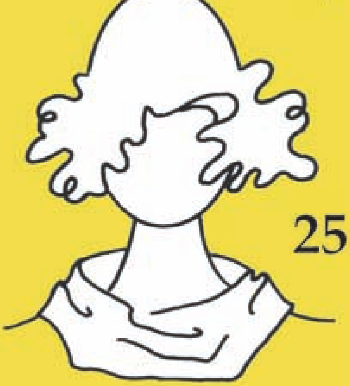
facing line
under collar
CB
front
CF
1
2
3
4
5
6
7
8
9
facing
neck dart
under collar
collar
CB
front
fold
CB
collar
fold
CB
stand
2.5cm
collar
stand
back
lower neck
collar



23

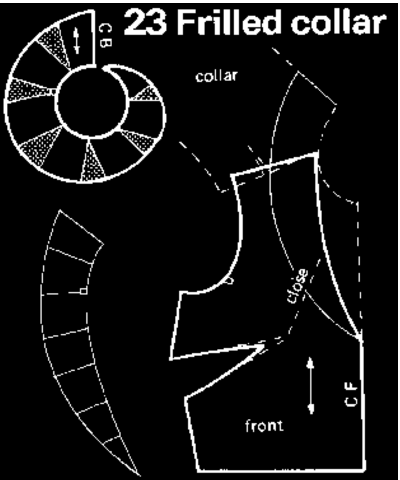


24

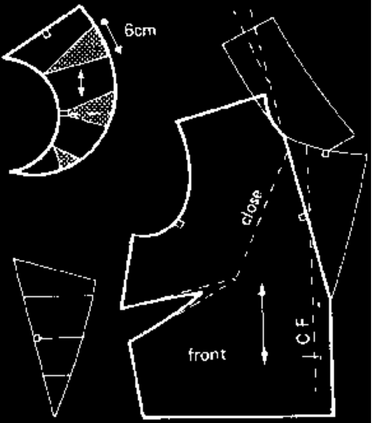


25

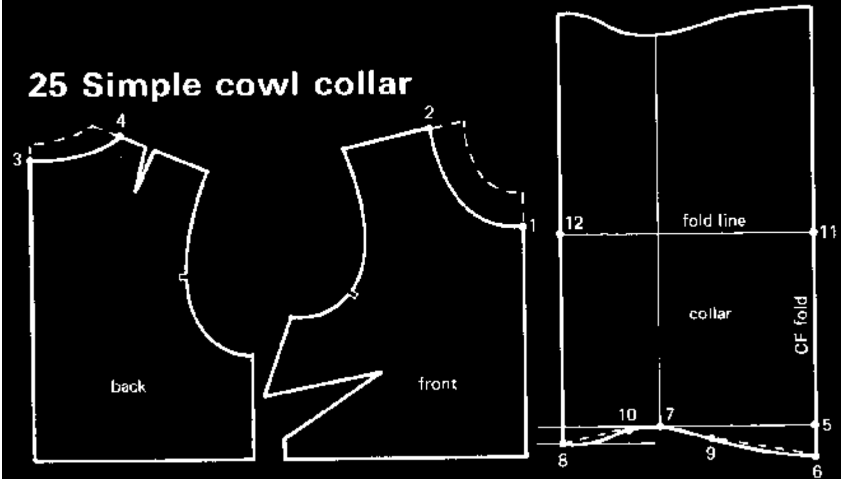
23 Frilled collar


C B
collar
close
C F
front

24 Frilled rever


6cm
close
C F
front

25 Simple cowl collar


3
4
2
1
back
front
12
fold line
11
collar
CF fold
10
7
5
8
9
6

23 Frilled collar

Construct a flat collar of required shape (ref. 1 page 70). Divide into seven sections. Cut out. Cut up lines and open till neck makes almost a full circle. Trace round collar making a smooth line. This makes only half a collar so collar requires a back seam.

24 Frilled rever

Trace round bodice block, construct a collar and rever based on the method of making a gents collar (ref. 17 page 76). Cut off rever, divide into sections, cut up lines and open out 6 cm as shown. Trace round pattern.

25 Simple cowl collar

Lower neckline approx. 3 cm at the shoulders, 1.5 cm at centre back, 3.5 cm at centre front.

Mark new neckline points 1, 2, 3, 4.

Square up and across from 5. 5–6 = 3 cm.

6–7 = the measurement 1–2 (measured in a curve) minus 1 cm; square up. Draw a parallel line 2 cm below line from 5.

7–8 = the measurement 3–4 (measured in a curve) minus 0.6 cm; square up.

7–9 one third the measurement 6–7.

7–10 one third the measurement 7–8.

Curve the neckline 0.5 cm on each section as shown.

5–11 is the depth of collar (example is 17 cm); square across to 12.

Fold along the line 11–12, cut out pattern with paper folded to repeat the shape.

PART ONE: CLASSIC FORM CUTTING

6 The basic fitted skirt block and adaptations

The tailored skirt block

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Skirt patterns – examples

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skirt

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skirt

96

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96

25 Waistbands

98

Note The adaptations in this chapter are based on skirts that sit on the waistline and require a close tailored fit around the waist and hips. However, many fashions today have lowered or elasticated waistlines or yokes.

Many skirts are now cut in fabrics with stretch, or are cut on the cross; therefore a simpler approach to the above adaptations can be made – see the simple and very simple skirt blocks in Part 2, Chapter 9 (page 134).

The tailored skirt block

The tailored skirt block is used when the skirt is *not* **1–9** quarter waist measurement plus 4.25 cm.

required to be attached to a bodice. Less ease has

9–10 1.25 cm; join 10 to points 1 and 7 with dotted been added to the hips of the skirt and this gives lines.

a closer fit. The side seam is moved forward.

Divide the line 1–10 into three parts, mark points 11

Note There is 1 cm ease in the waistline of the skirt.

and 12.

The waistline of a skirt should always be eased onto

Using the line 1–10, square down from points 11 and

the skirt waistband or petersham.

12 with dotted lines.

11–13 14

cm.

Measurements required to draft the block

12–14 12.5

cm.

Construct two darts on these lines, each 2 cm wide.

Measurement from any of the size charts in this book

Draw in the waistline with a slight curve; draw in

(pages 12–14) or personal measurements (see page

the side seam curving it outwards 0.5 cm.

178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion **Front**

garments) is used for this illustrated example.

2–15 quarter the waist measurement plus 2.25 cm.

15–16 1.25 cm, join 16 to points 2 and 7 with dotted lines.

waist 68

cm

hips 94

cm

16–17 is one third the distance 2–16; using the line waist to hip 20.6 cm

2–16, square down from 17 with a dotted line.

skirt length (affected by fashion)

17–18 10

cm.

Construct a dart on this line 2 cm wide.

Square down and across from 1.

Draw in the waistline with a slight curve, draw in

1–2 half the hip measurement plus 1.5 cm, square the side seam curving outwards 0.5 cm.

down; this line is the centre front line.

1–3 skirt length, square across to 4 on the centre **Special note for individual figures** front line.

If the waist is small in proportion to the hip size of **1–5** waist to hip measurement, square across to 6

the standard block, increase the width of the darts to on the centre front line.

2.5 cm. This will require you to draft:

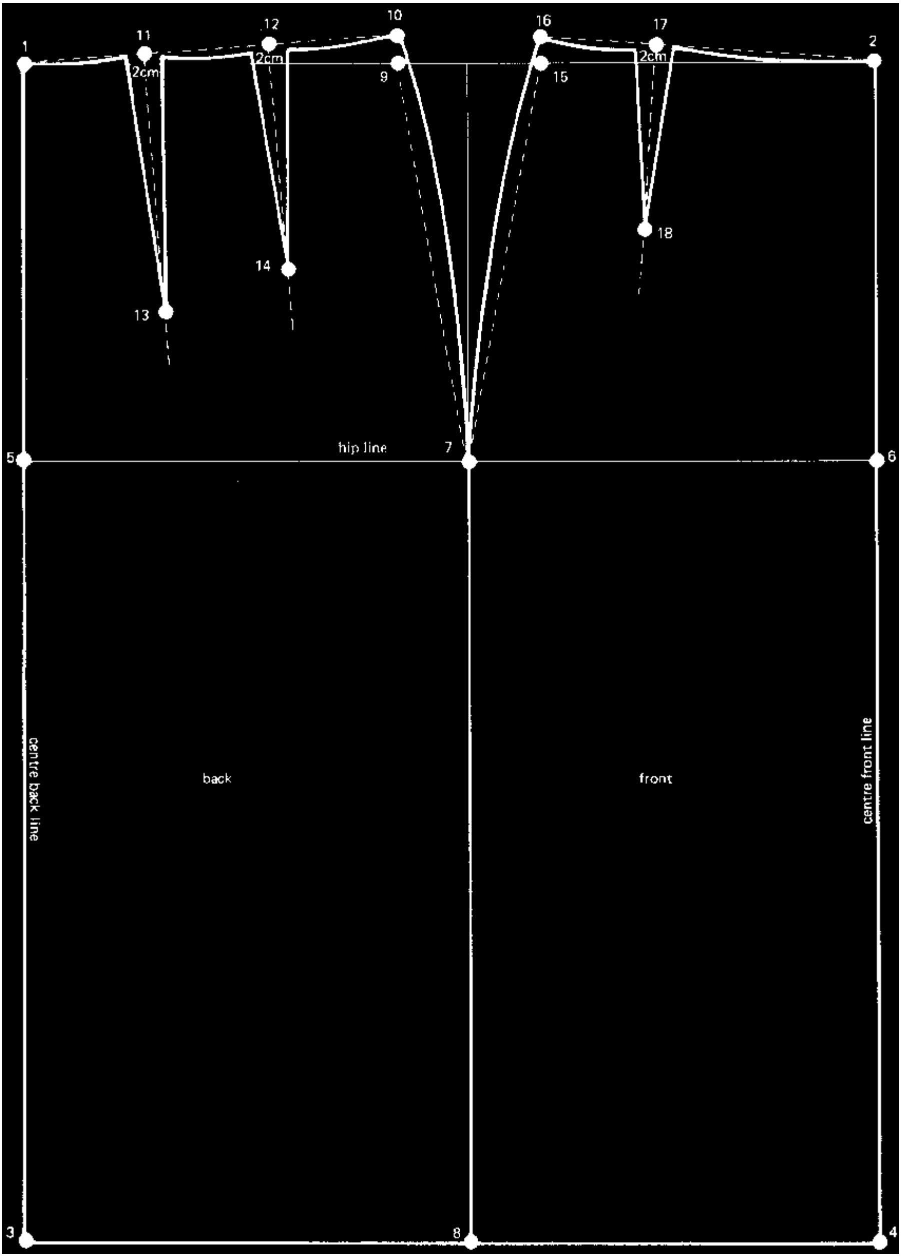
1–9 quarter waist plus 5.25 cm.

Back

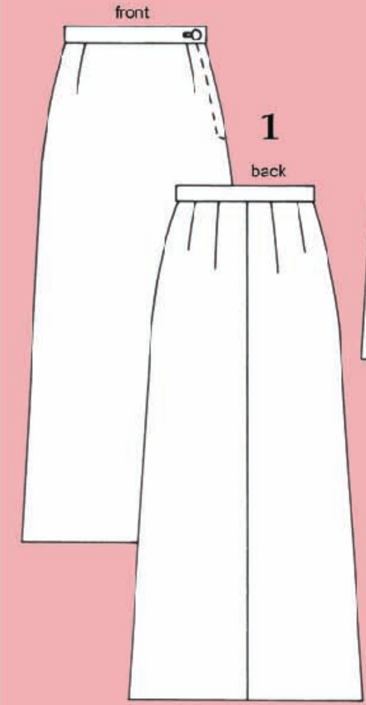
2–15 quarter waist plus 2.75 cm.

5–7 quarter the hip measurement plus 1.5 cm ease, This ensures a more even suppression around the square down to 8 on the hemline.

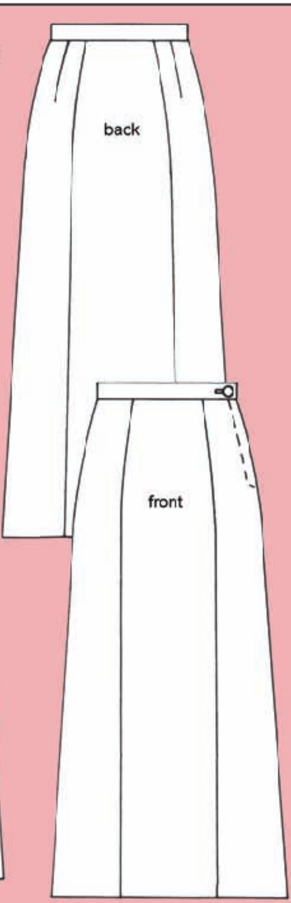
waistline.


2cm
2cm
2cm
hip line
centre back line
back
front
centre front line

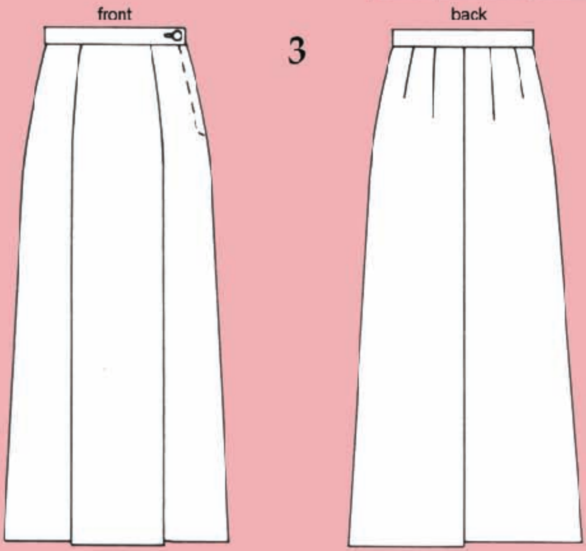
1



2



3



Skirt patterns – examples

Choose the correct skirt block. If the skirt is a separate garment use the tailored skirt block. If the skirt is to be attached to a bodice, use the skirt of the two-piece dress block.

Waist darts All waist darts can have their positions moved, but the darting must be evenly distributed.

1 Straight skirt

Trace round skirt block.

Mark points 1 and 2 on centre back line. 2–3 = 1 cm. Join 1 to 3. This becomes new centre back line; it gives a slight swing to the back skirt to prevent seating. *Use this swing on straight skirts only*.

Add 2.5 cm flare to side seams at hem. Mark point 4. Join 4 to hip point.

Note A completely straight skirt can be cut without swing or flare.

2 Panel

skirt

Trace the straight skirt pattern.

Draw panel lines on front and back.

Transfer front and one back dart onto these lines. Cut up panel lines and along dart shaping to separate the pieces. Trace round new pattern sections.

3 Straight skirt with vent pleat – box pleat

Trace the straight skirt pattern.

Back Mark centre back line.

Pleat stitch line Add a pleat to this line 8 cm wide.

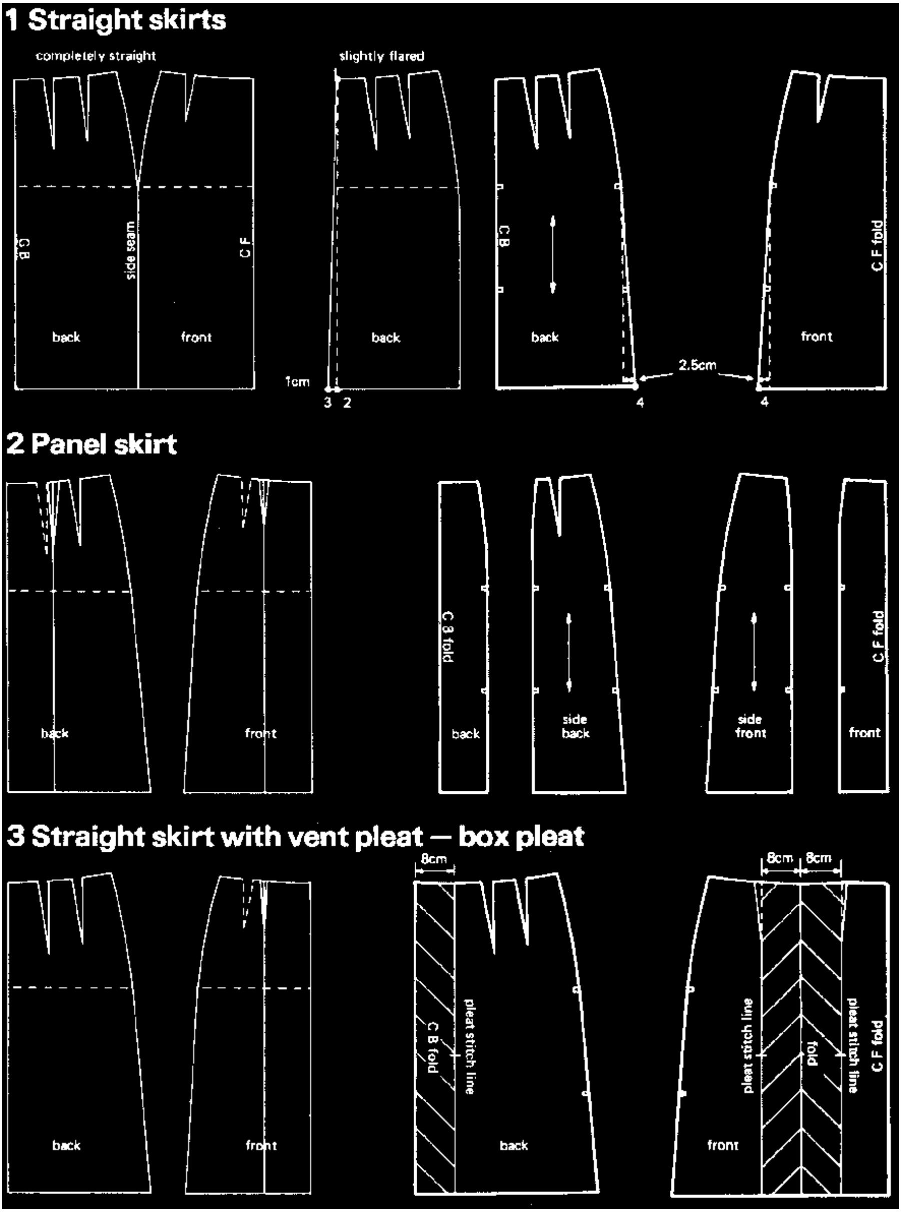
Fold pattern on pleat stitch line and cut out.

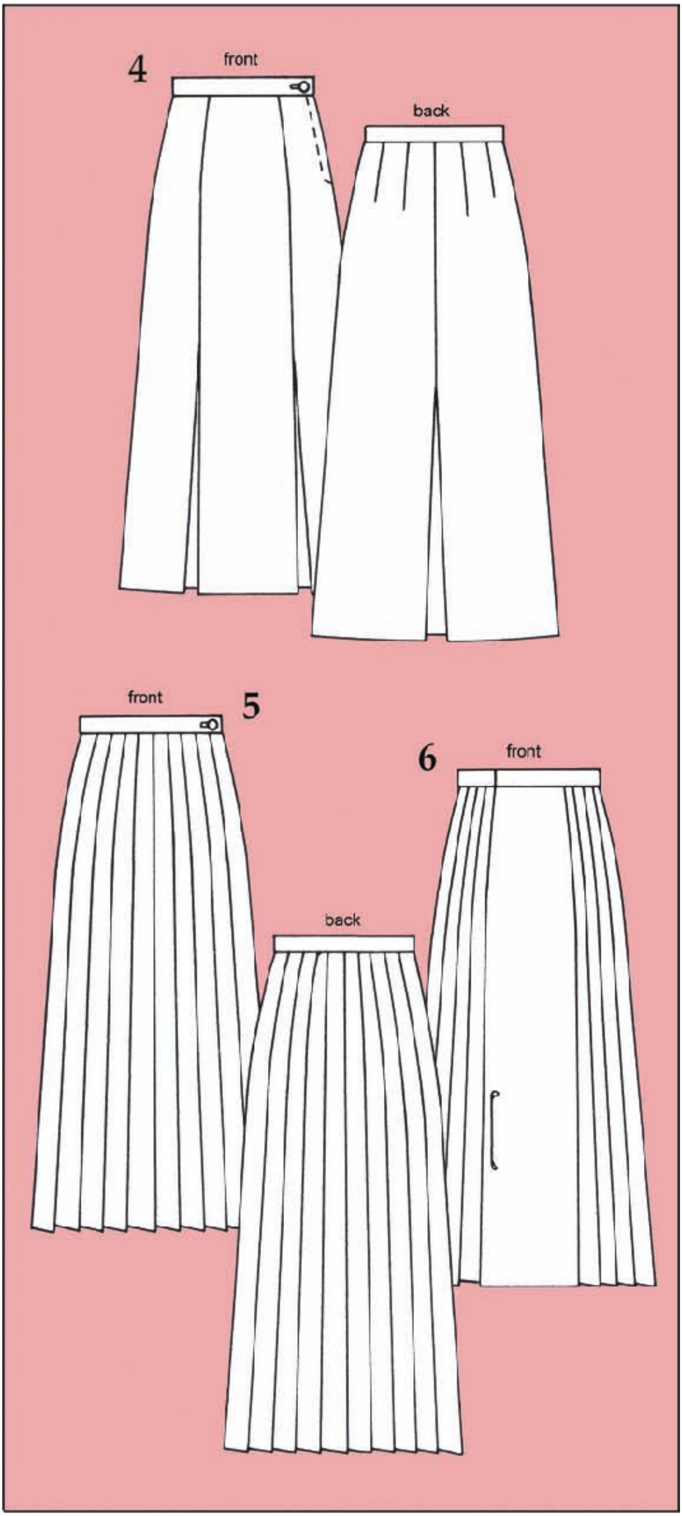
Front Mark pleat line, transfer dart to this line. Separate panels.

On a new piece of paper draw three parallel lines 8 cm between. Place panels to the outer lines as in the diagram; trace round panels.

Fold pattern along pleat lines so that pleat folds towards centre front.

Cut out pattern.


1 Straight skirts
completely straight
slightly flared
C B
side seam
C F
back
front
back
1cm
3 2
C B
back
2.5cm
4
4
C F fold
front
2 Panel skirt
back
front
C B fold
back
side back
side front
C F fold
front
3 Straight skirt with vent pleat — box pleat
back
front
8cm
C B fold
pleat stitch line
back
8cm 8cm
front
pleat stitch line
fold
pleat stitch line
C F fold


4
front
back
front
5
back
6
front

4 Straight skirt – inverted pleats

Trace straight skirt pattern.

Back On a new piece of paper draw three parallel lines 8 cm between. Place back skirt pattern to inner line and trace around.

Fold pattern along the pleat line so that pleat falls towards side seam.

Cut out pattern.

Front Mark pleat line, transfer dart to this line, separate panels.

On a new piece of paper draw five parallel lines 8 cm between. Place panels to outer lines as in diagram; trace round panels.

Fold the pattern so that pleat 1 folds towards side seam, and pleat 2 folds towards centre front.

Cut out pattern.

Note If a tight lay is required the centre panels of the pleat can be cut as a separate panel *or* the pleat can be finished at the line 1–2.

5 Skirt with all-round pleats (work directly onto cloth)

Decide pleat width; work out the number of pleats required to make up the hip measurement plus approx. 2 cm ease.

Work directly onto the cloth. Cut a piece of fabric; depth = skirt length plus hem and seam allowance; width = three times (hips + ease) plus seam allowance. The fabric will have to be seamed to obtain this width.

Mark pleats with pins as shown in diagram.

Fold pleats and tack to hip line.

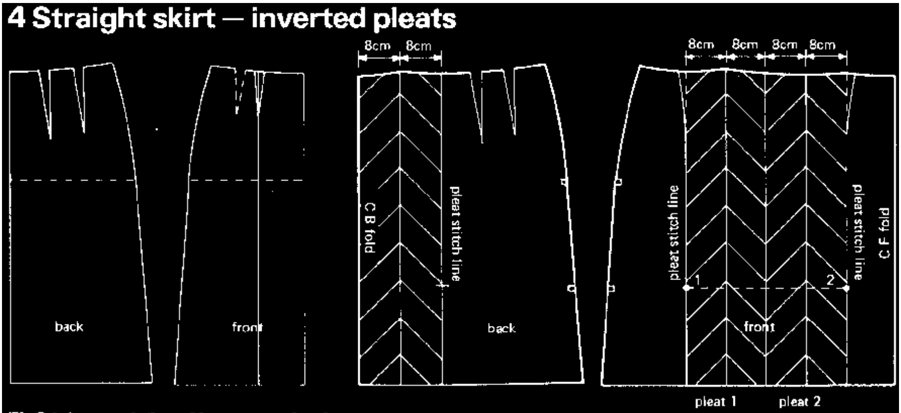
To shape waist take the edge of each pleat and lap it over the required amount to obtain correct waist measurement.

6 Kilt (work directly onto cloth)

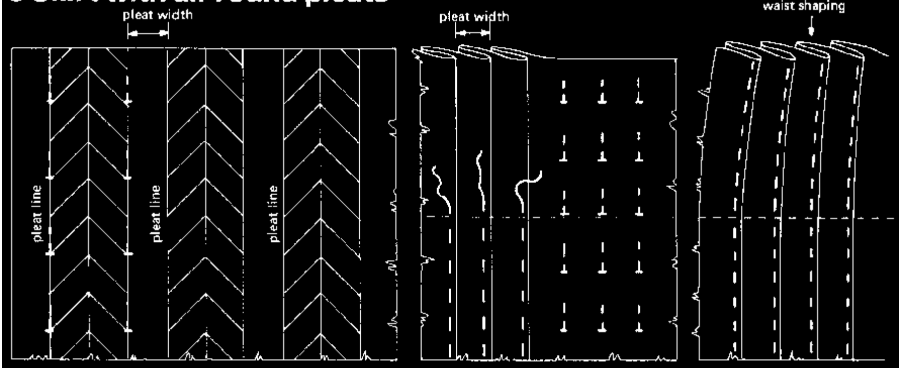
The pleats are made as above.

Eight pleats less are required for a kilt.

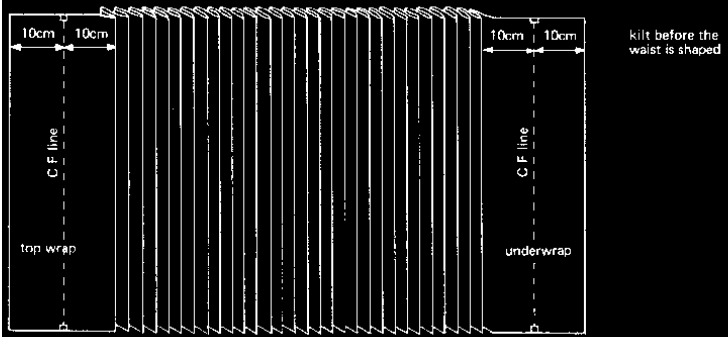
Allow 10 cm each side of centre front for top wrap; allow same amount for underwrap.


4 Straight skirt — inverted pleats

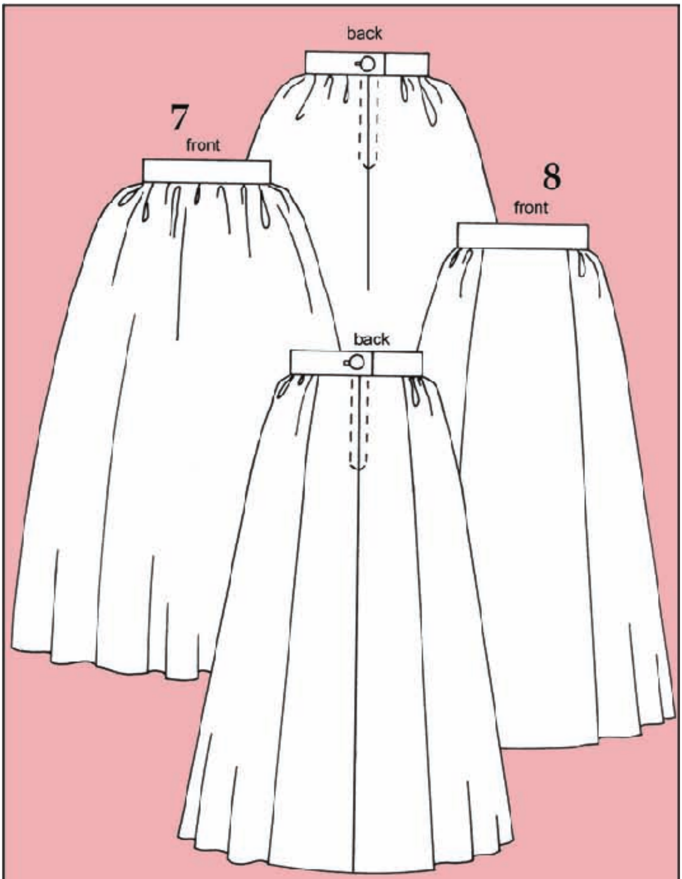
8cm
8cm
8cm
8cm
8cm
8cm
back
front
C B fold
pleat stitch line
back
pleat stitch line
1
2
front
pleat stitch line
C F fold
pleat 1
pleat 2

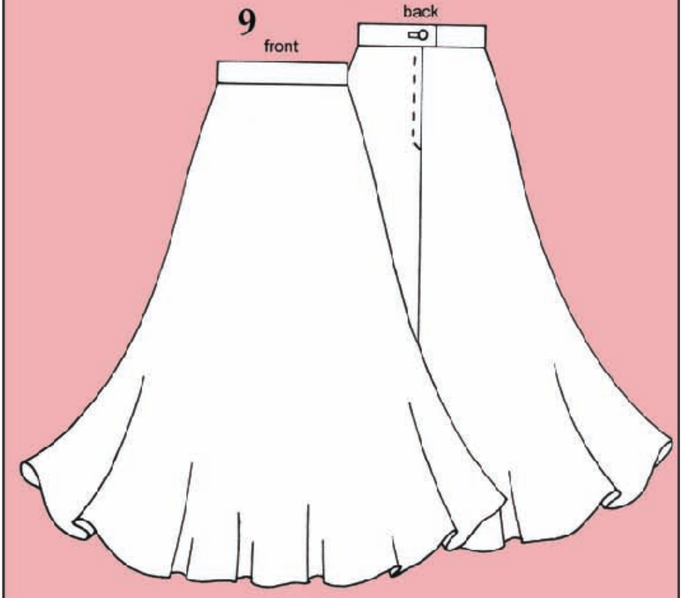

5 Skirt with all-round pleats

pleat width
pleat line
pleat line
pleat line
pleat width
waist shaping


6 Kilt

10cm
10cm
C F line
top wrap
10cm
10cm
C F line
underwrap
kilt before the waist is shaped


back
7
front
8
front
back


9
front
back

7 Gathered skirt

Slightly gathered Cut two rectangles; depth = skirt length, width = one quarter hips + 15 cm. Curve the waistline 1.5 cm higher at the side seam.

Very gathered Cut directly in cloth.

Cut a piece of fabric; depth = skirt length plus hem and seam allowance, width = approx. three times hip size. The fabric will have to be seamed to obtain the width. (Place waistline to selvedge on suitable fabrics only.)

Fold fabric. Place centre front to fold.

Mark side seams at half the distance.

8 Gathered skirt with panels

Trace round basic block.

Draw in panel lines. Transfer front dart and one back dart to these lines, rub out the other back dart.

Divide back and front side panels in

half with a dotted line; mark B1 and B2, F1 and F2. Cut out.

Centre front/centre back panels

Trace round panels, add approx. 5 cm flare at hem of panel seam.

Side panels Trace round panel 1, add approx. 5 cm flare at hem of panel seam.

Draw a line parallel to the dotted line, width 12 cm. Place panel 2 to this line and trace round.

Add approx. 5 cm flare at hem of the side seam.

Note When adding flare take flare line to hipline.

9 Circular skirt

The construction of a circular skirt is based on the circle. Make the waist measurement the circumference.

Calculate the radius (see Appendix, page 212).

Square both ways from 1.

1–2 = the radius. 1–3 = the radius.

Draw a quarter circle from 2–3.

2–4 = skirt length.

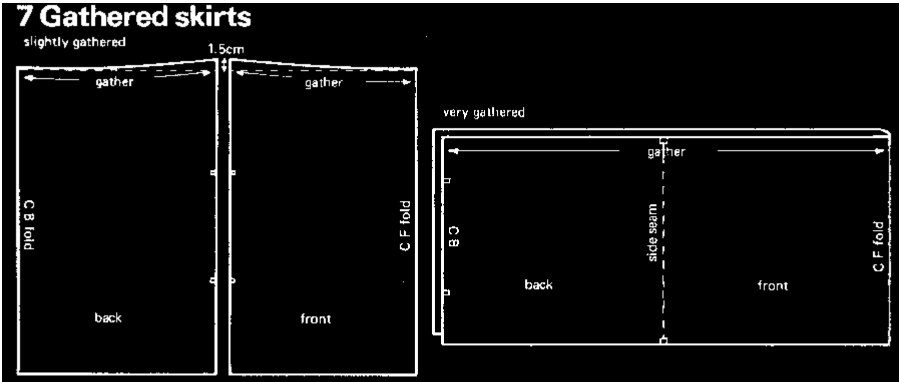
With a metre stick mark out the edge of circle as shown.

Half circular skirt Construct the pattern as for the circular skirt but make the following alteration:

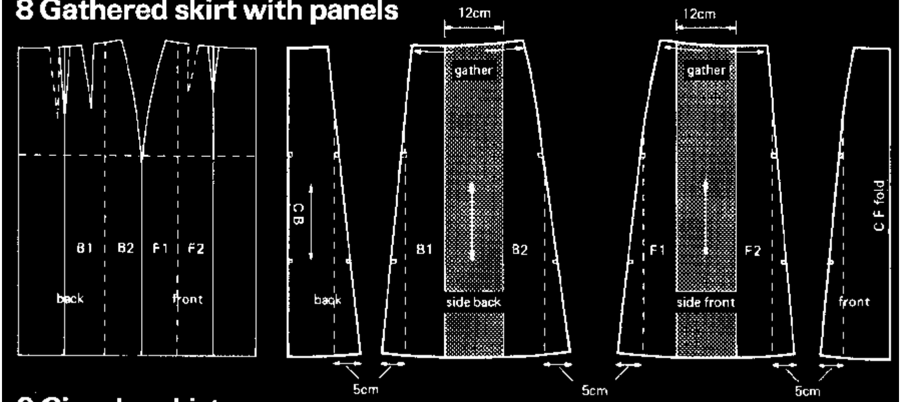
1–2 = twice the radius.

1–3 = twice the radius.

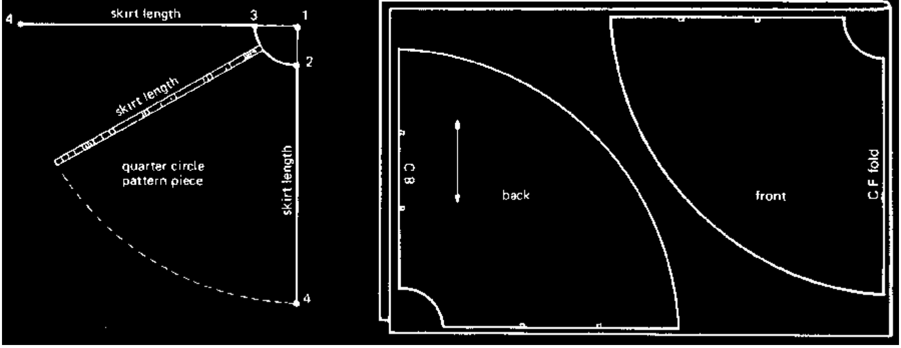
7 Gathered skirts

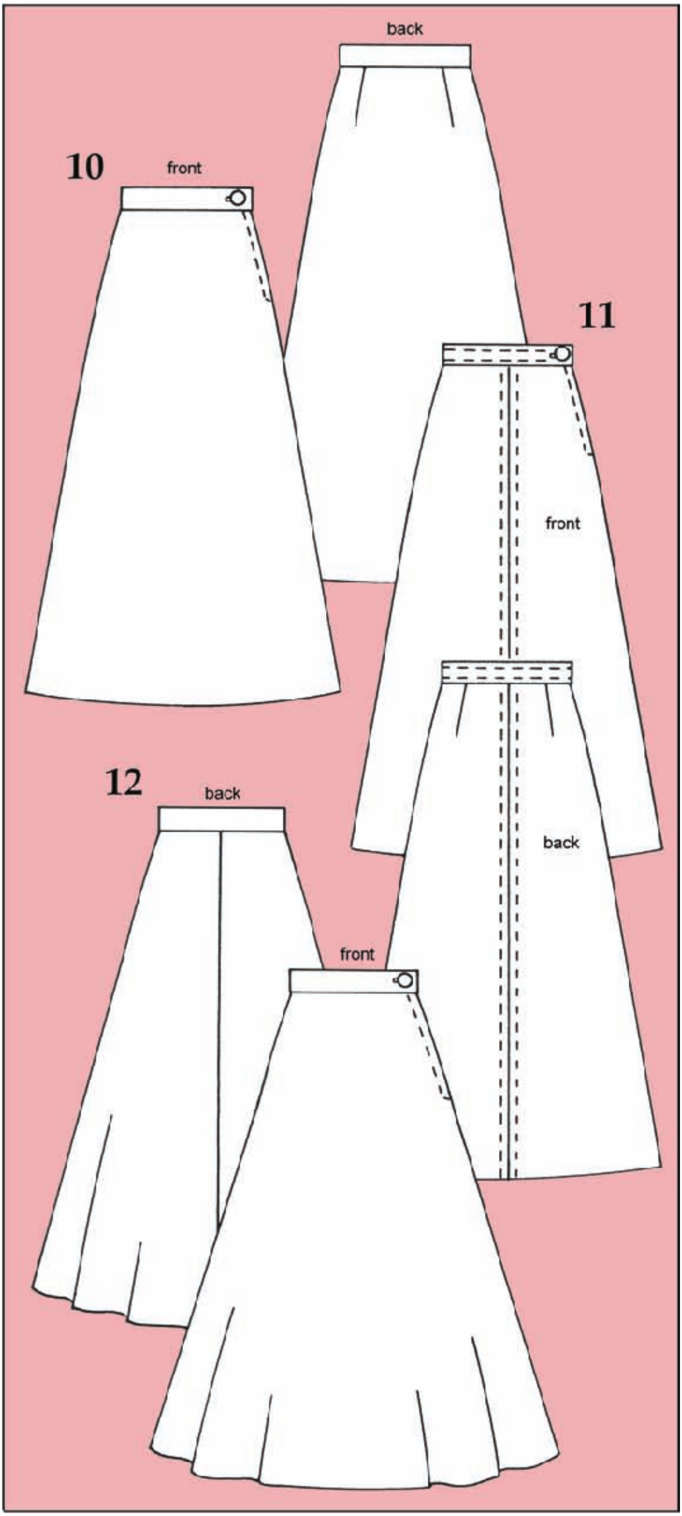

slightly gathered
1.5cm
gather
gather
C B fold
C F fold
back
front
very gathered
gather
C B
side seam
back
front
C F fold

8 Gathered skirt with panels


12cm
12cm
B1
B2
F1
F2
back
front
C B
back
gather
B1
B2
side back
gather
F1
F2
side front
C F fold
front
5cm
5cm
5cm

9 Circular skirt


4
skirt length
3
1
2
skirt length
quarter circle pattern piece
skirt length
4
C B
back
front
C F fold


back
10
front
11
front
back
12
back
front

10 Basic ‘A’ line skirt

Trace round basic block.

Front Change the 2 cm front dart into two 1 cm darts placed at points where waistline is divided into three.

From the base of the darts draw vertical lines to hem.

Cut out pattern and cut up vertical lines. Close up darts.

Place on a new piece of paper, trace round new outline. Make sure the flare openings at hem are equal. Add 2.5 cm flare to hem at side seam.

Back Reduce the two waist darts to 1 cm and draw in a new 2 cm dart midway between.

From original darts drop vertical lines to hem. Close the two outer 1 cm darts, then proceed as for the front pattern.

The flare openings at the hem can be made equal to the front pattern if required.

Add 2.5 cm flare to hem at side seam.

11 Four gored skirt

A four gored ‘A’ line skirt with the grain in the centre of the panel will have a better ‘hang’.

Back Mark in hipline; mark points 1 and 2, 3 is midway between 1 and 2.

Mark in original side seam of basic block; mark points 4 and 5 on hemline, 6 is midway between 4 and 5.

Join 3 to 6. This line is the grain line.

Front Proceed as for back.

Note This skirt can be cut on the straight or cross.

12 Skirt with extra flare

Trace round basic block.

Drop vertical lines from all darts and a point midway between front dart and centre front.

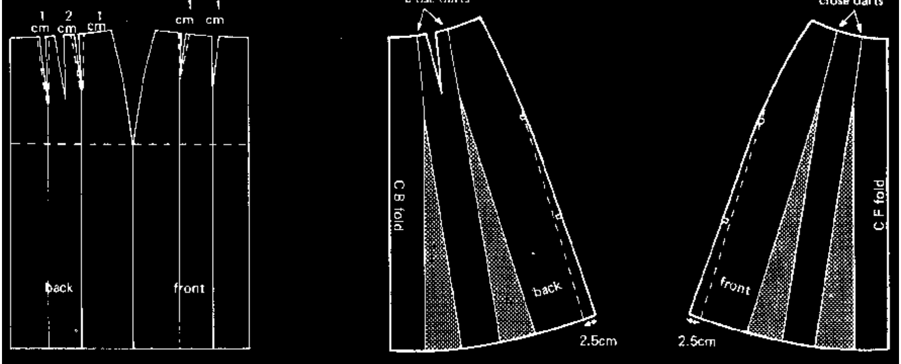
Cut out block and cut up vertical lines.

Close darts to give flare at hemline, open vertical line on front pattern to give an equal amount of flare.

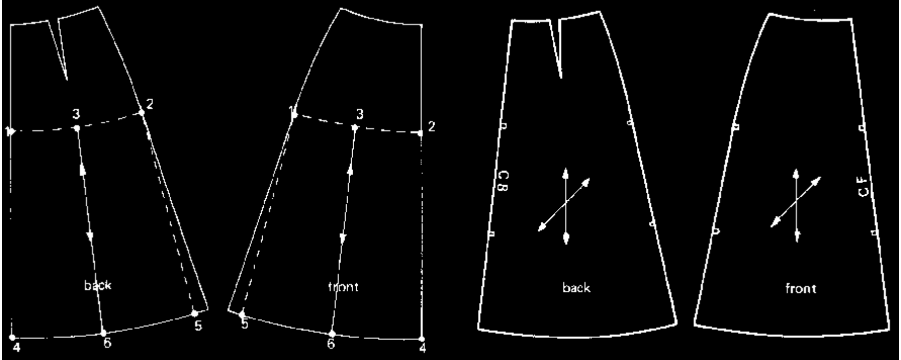
Trace round new outlines on a new piece of paper.

Add 2.5 cm flare to hem at side seams.

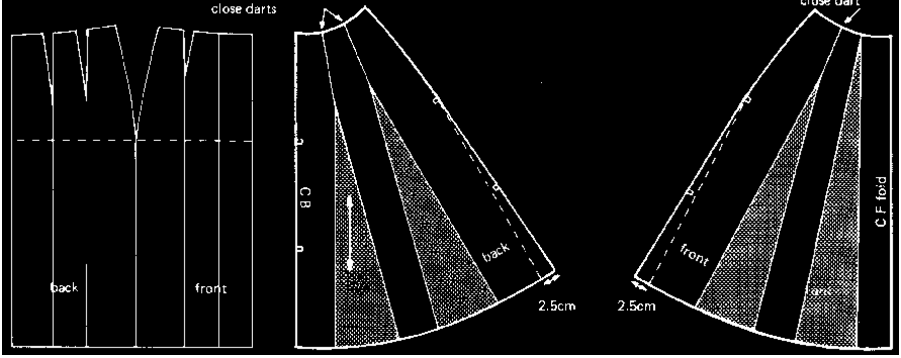
10 Basic 'A' line skirt

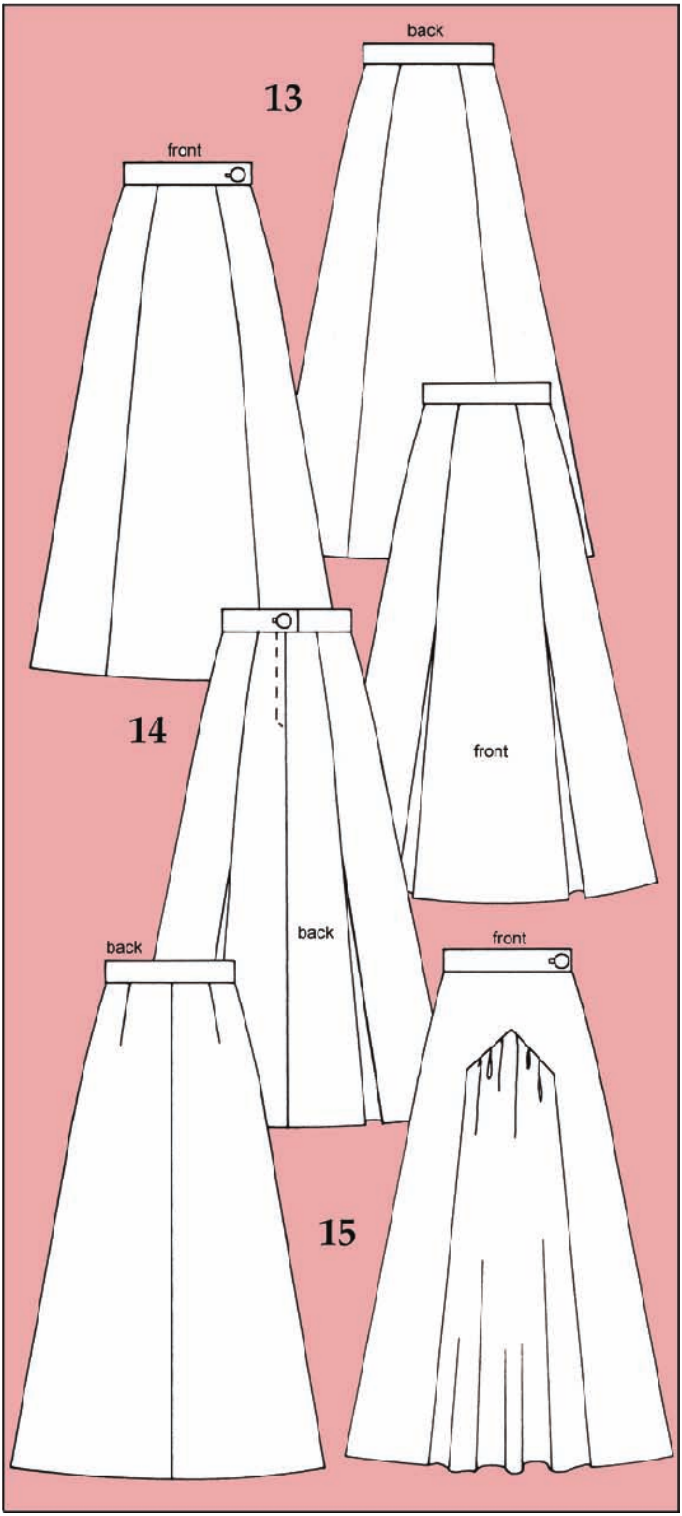

1 cm
2 cm
1 cm
1 cm
1 cm
back
front
close darts
C B fold
back
2.5cm
close darts
C F fold
front
2.5cm

11 Four gored skirt


3
2
1
back
4
6
5
1
3
2
front
5
6
4
C B
back
C F
front

12 Skirt with extra flare


back
front
close darts
C B
back
2.5cm
close dart
C F fold
front
2.5cm


back
13
front
14
front
back
back
front
15

13 Gored ‘A’ line skirt

Trace round ‘A’ line skirt pattern.

Back Draw in hipline and original side seam. Mark points 1, 2, 3, 4, on hip and hemline.

1–5 is one third 1–2.

1–6 is one third 3–4.

Draw in panel line, transfer the back dart onto this line.

7 is midway 5–2. 8 is midway 6–4.

This is the grain line for side panel.

Cut up panel line and dart shaping.

Trace round new pattern pieces.

Front Proceed as for back; there is no dart in front pattern.

Note When skirt is not evenly divided by panel line, square down from hipline on side panel to find grain.

14 Gored and pleated ‘A’ line skirt

Trace round gored skirt pattern.

Back Extend pleat stitch line to waist by ruling a straight line (leave shaping at the waist marked). Mark points 1 at waistline and 2 at hemline.

1–3 = 6 cm. 2–4 = 9 cm. Join 3 to 4.

Fold along pleat line and cut out pattern.

Side back Extend pleat stitch line to waist and make pleat for side back as described above.

Pleat backing Draw a vertical line.

Mark points 5 and 6.

5–6 = length of the pleat stitch line.

5–7 and 5–8 = 6 cm.

6–9 and 6–10 = 9 cm.

Join 7 to 9 and 8 to 10.

Cut out backing piece.

Front patterns Proceed as for back patterns; there is no waist shaping in the front.

15 'A' line skirt – gathered inset

Trace round 'A' line skirt pattern.

Back Basic 'A' line pattern.

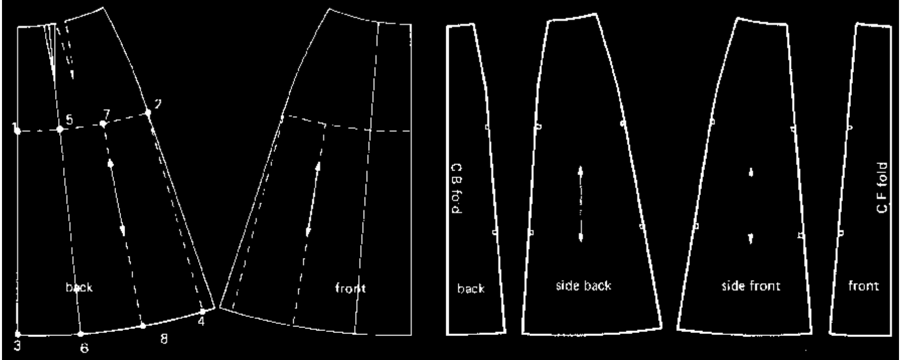
Front Draw in the design of inset on front pattern. Divide inset into three equal parts.

Cut out inset from front pattern. Cut up the vertical lines.

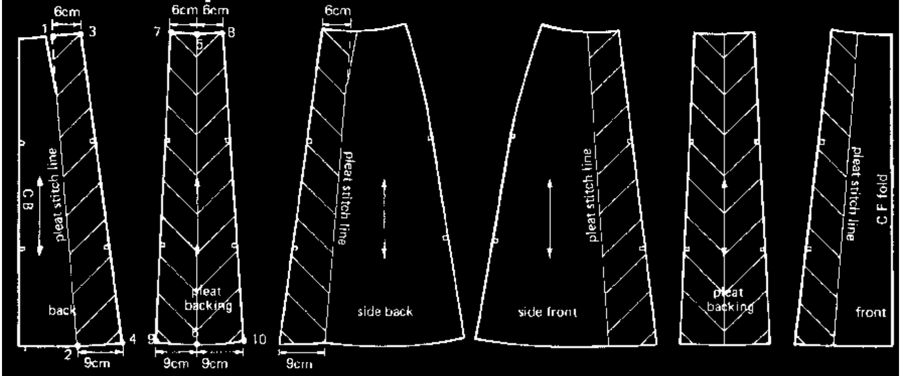
Place onto new paper; open out the sections, inserting 4 cm at top for gathers and 7 cm at bottom for flare. (More can be inserted if required.)

Trace round new outline of inset.

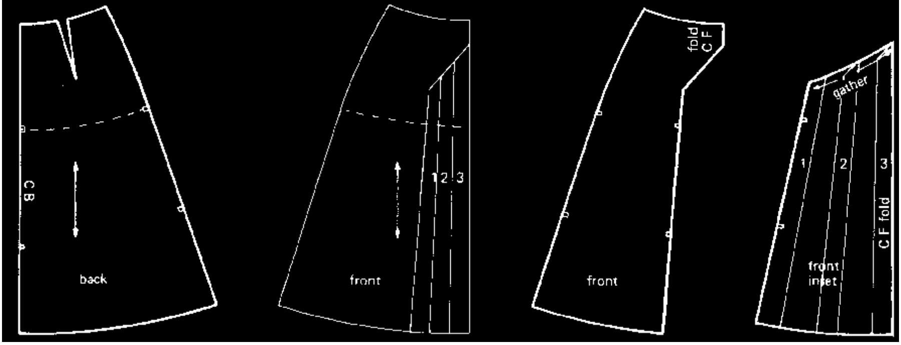
13 Gored 'A' line skirt

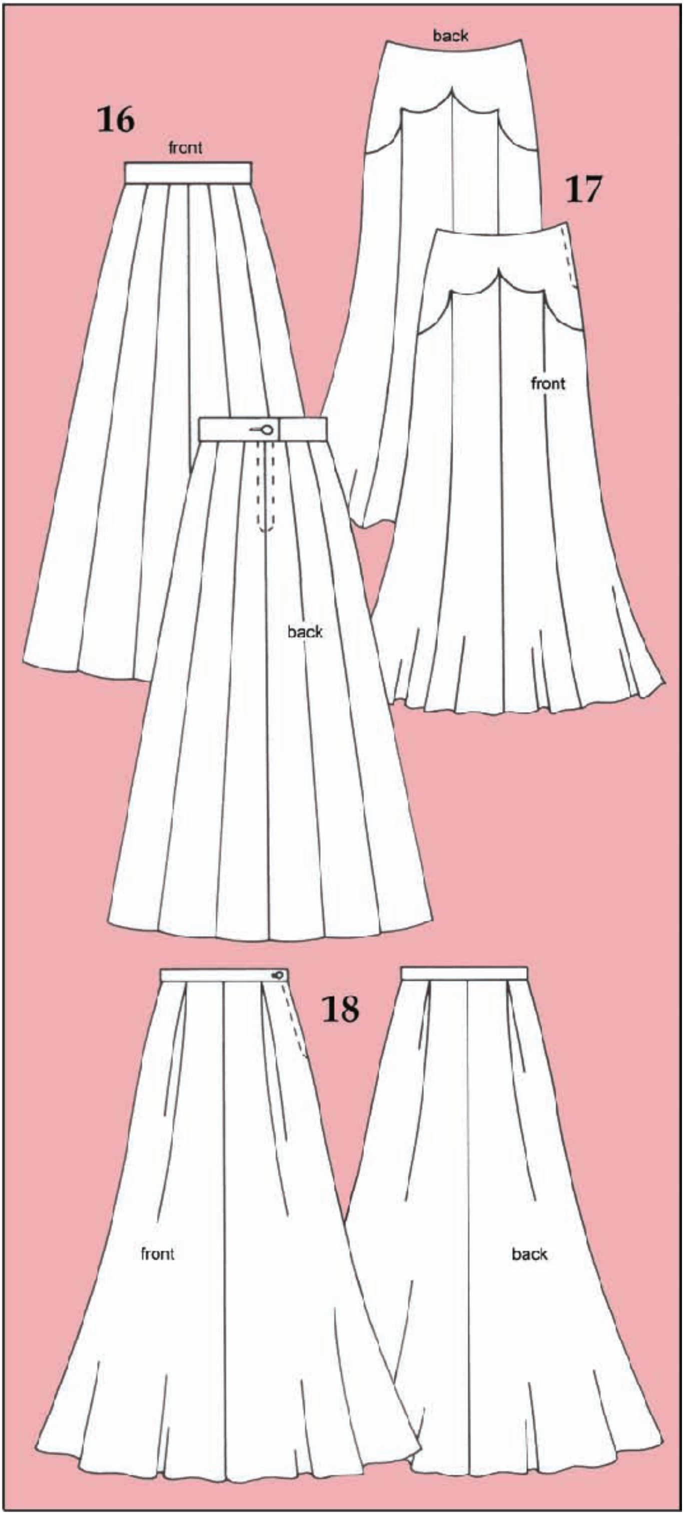

1
1
5
7
2
back
3
6
8
4
front
C B fold
back
side back
side front
front
C F fold

14 Gored and pleated 'A' line skirt


6cm
1
3
C B
pleat stitch line
back
2
4
9cm
6cm 6cm
7
5
8
pleat backing
9
6
10
9cm 9cm
6cm
pleat stitch line
side back
9cm
side front
pleat stitch line
pleat backing
pleat stitch line
C F fold
front

15 'A' line skirt — gathered inset


C B
back
1 2 3
front
fold C F
front
gather
1
2
3
C F fold
front inset


16
front
back
back
17
front
18
front
back

16 Gored skirt

(If using the tailored skirt block, transfer complete side seam to centre of block.) Rub out waist darts.

Divide front and back skirt into six equal sections on hipline. Square up and down.

New darting Darts to touch a dotted line 14 cm down from waistline.

Add 1 cm to waistline at front and back side seam. Make two 2.5 cm darts on back panel lines and two 1.5 cm darts on front panel lines.

Add 3 cm flare to hem of all panel seams.

17 Gored skirt with low flare

Trace round basic skirt block.

Draw in shaped yoke and drop vertical lines from the shaped points.

Mark balance points halfway down the length of the skirt. Extend waist darts to yoke line.

Yokes Cut yokes from pattern, close darts and trace round new outline on new piece of paper.

Gores Cut out skirt and cut up vertical lines. Trace round the four gores.

Add 7 cm flare at hem, join to low balance points.

Note Skirt can be cut on the cross.

18 Flared skirt – unpressed pleats

Trace round basic block.

Back Draw in pleat line, move inner dart onto this line. Cut out pattern and cut up pleat line.

On a new piece of paper draw vertical lines 1–2.

1–3 and 3–4 = 5 cm.

2–5 and 5–6 = 7 cm.

Join lines 3–5 and 4–6.

Place the pieces of back each side of lines 4–6 and trace round.

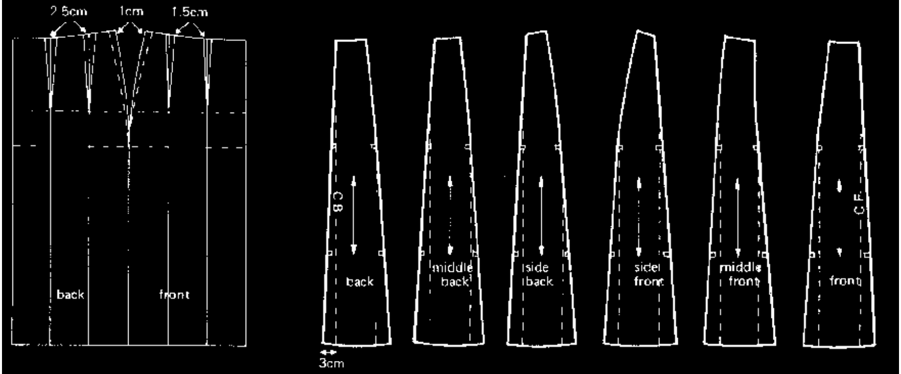
Add 5 cm flare to hemline at centre back and 7.5 cm to hemline at side seam.

Fold pattern on pleat lines, one pleat folded towards centre back, the other towards side seam. Cut out pattern.

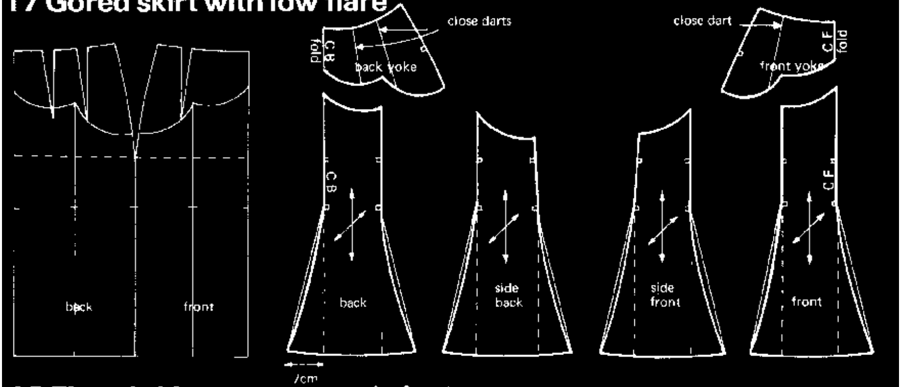
Front Draw in pleat line. Transfer front dart to this line, proceed as for the back.

Note Skirt can be cut on the cross.

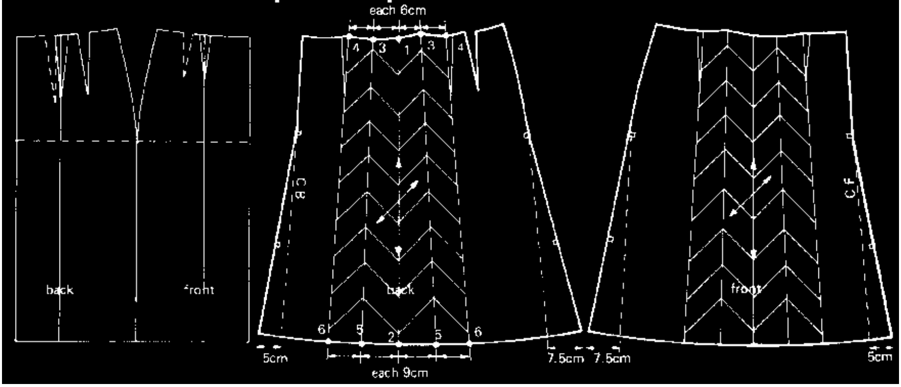
16 Gored skirt

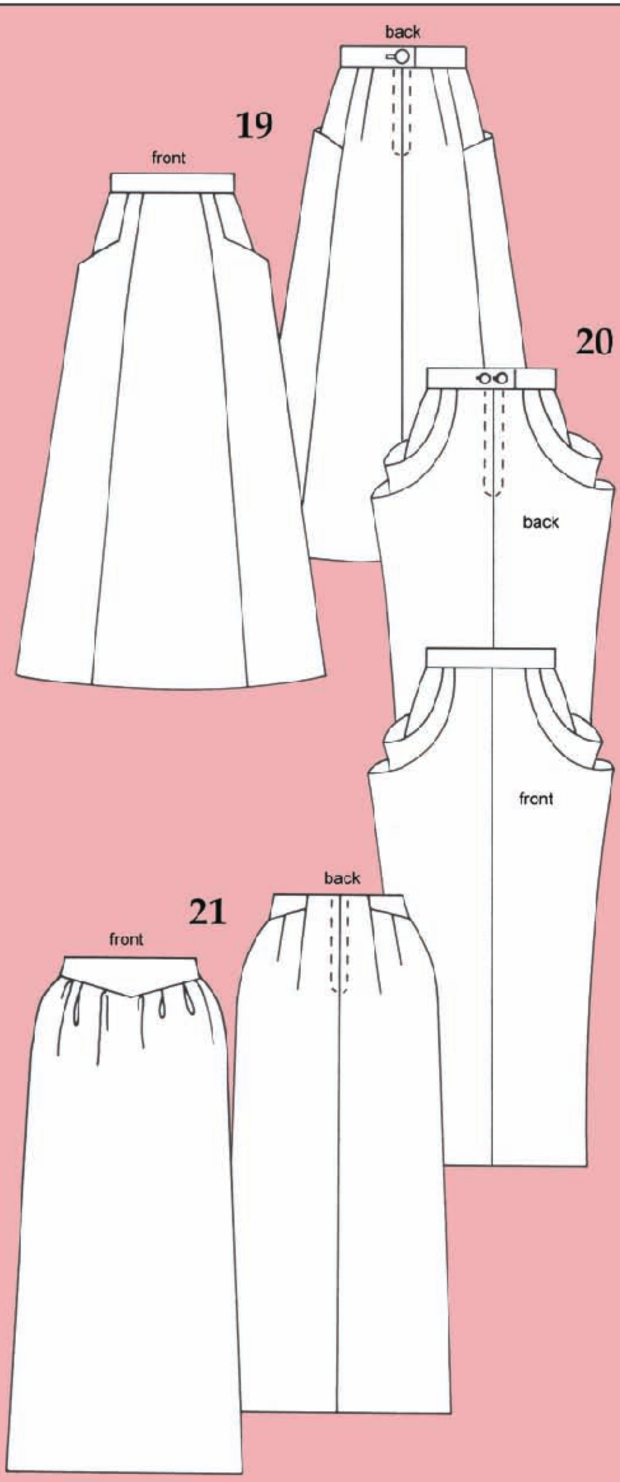

2.5cm
1cm
1.5cm
back
front
CB
back
middle back
side back
side front
middle front
CF
front
3cm

17 Gored skirt with low flare


close darts
fold
CB
back yoke
close dart
CF
fold
front yoke
back
front
CB
back
side back
side front
CF
front
7cm

18 Flared skirt — unpressed pleats


each 6cm
4
3
1
3
4
CB
back
front
CF
6
5
2
5
6
5cm
each 9cm
7.5cm
7.5cm
5cm


19

20

21
back
front
back
front
back
front

19 Skirt with hip pocket

Trace round basic skirt block. Draw in front and back panel lines. Transfer front dart and one back dart onto these lines. Draw in pocket line. Mark depth of pocket bag. Cut up panel lines.

Back and front Trace round back and front sections, add 5 cm flare to outer edge of panel at the hem.

Lower side panel Trace round side panel; cut away along pocket line. Add 5 cm flare to side seam at hem.

Top side panel Trace round side panel to depth of pocket bag line. Add flare.

Pocket facing Trace round top side panel; cut away along pocket line.

20 Cowl skirt

Trace round basic skirt block. Mark point 1 midway between front dart and centre front. Decide the depth of the cowl lines, draw the cowl lines from the base of the darts and point 1. Cut up side seams and along cowl lines.

On a new piece of paper draw a horizontal line. Place side seams of skirt to this line and allow hem of side seams to touch. This opens the cowl lines.

Trace round pattern and make a good curve at the hem.

21 Skirt with gathered front

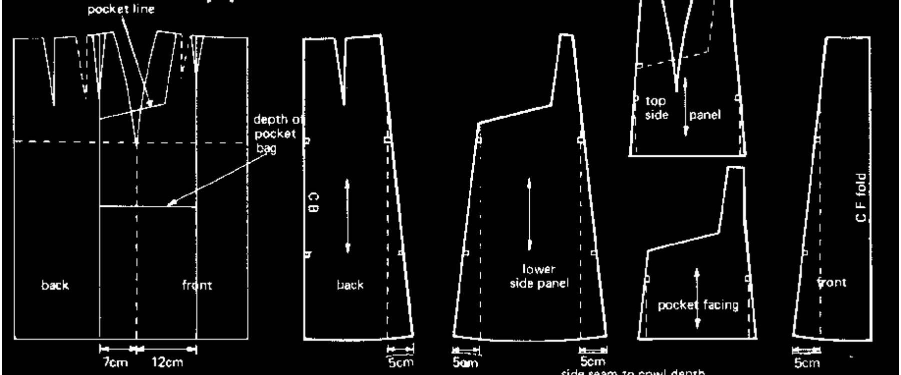
Trace round straight skirt pattern. Draw in yoke line, number sections 1, 2, 3, 4. Divide front skirt into three sections 5, 6, 7.

Yoke Cut yoke from block, close darts; trace round pattern with good curves.

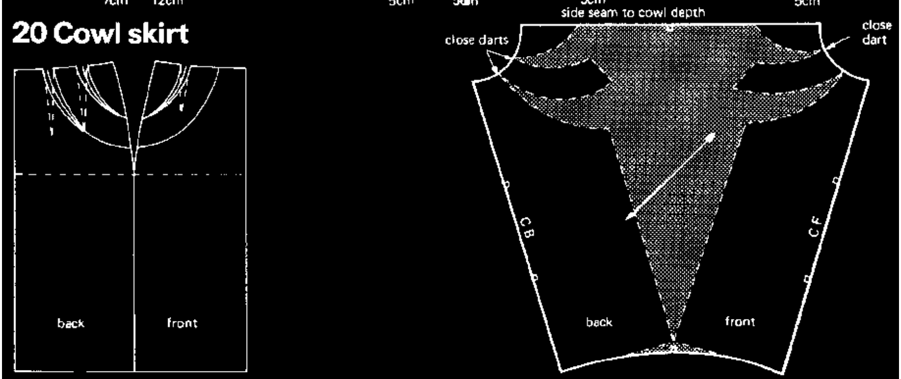
Back Cut out and trace back section.

Front Cut out front; cut up section lines. Open sections at waist only (approx. 4 cm), trace round pattern.

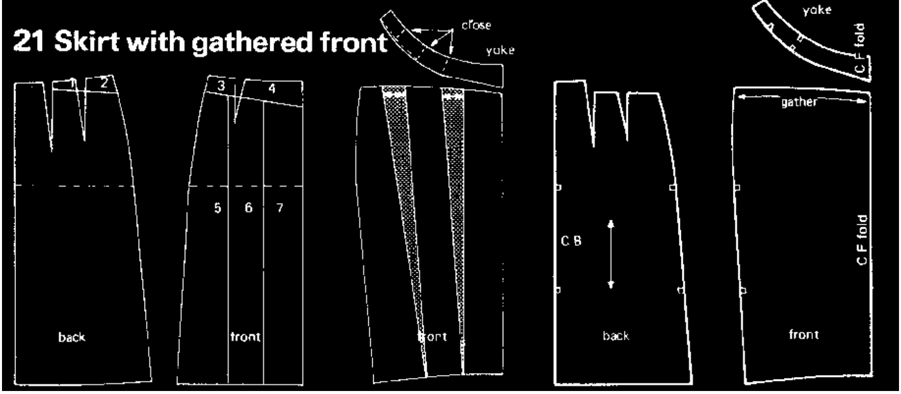
19 Skirt with hip pocket

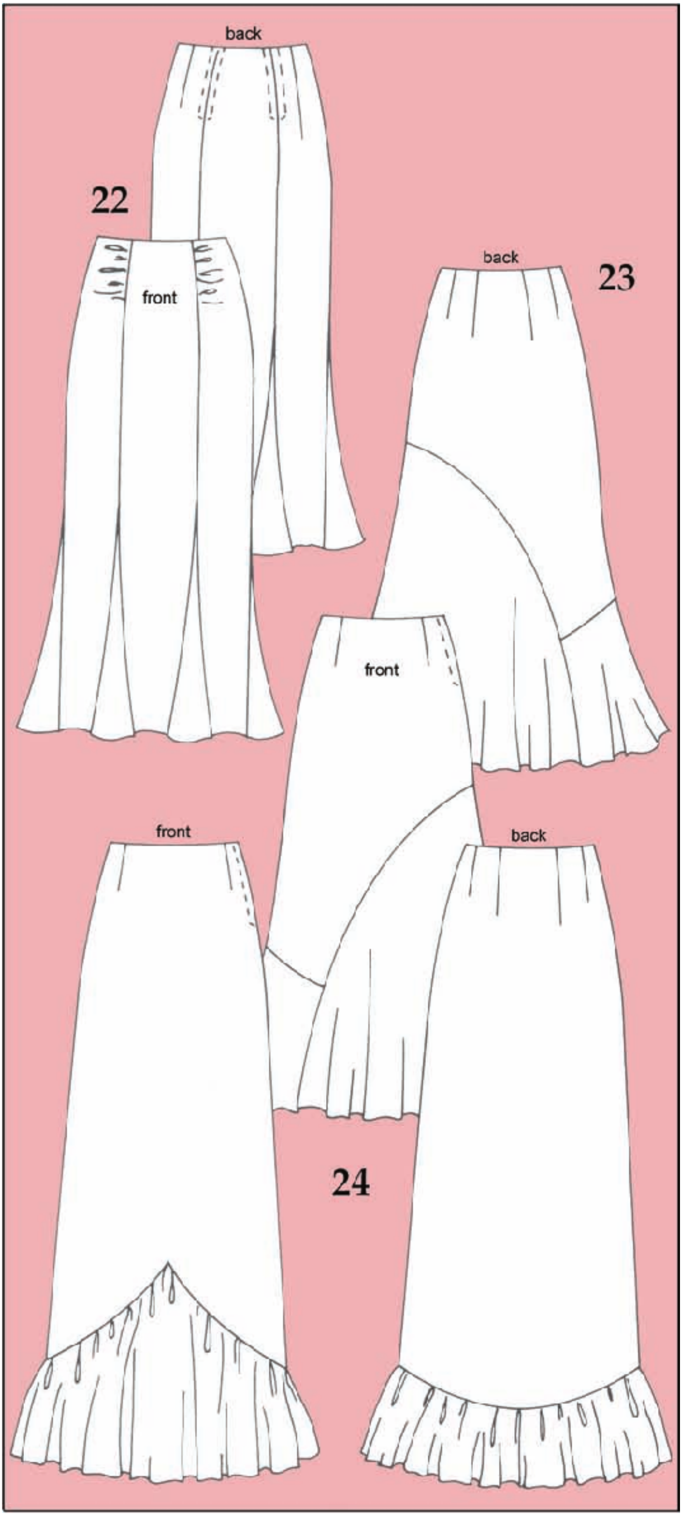

pocket line
depth of pocket bag
back
front
7cm
12cm
C B
back
5cm
lower side panel
5cm
5cm
top side
panel
pocket facing
C F fold
front
5cm

20 Cowl skirt


back
front
side seam to cowl depth
close darts
close dart
C B
C F
back
front

21 Skirt with gathered front


close
yoke
1
2
back
3
4
5
6
7
front
front
C B
back
yoke
C F fold
gather
C F fold
front


back
22
front
back
23
front
front
back
24

22 Skirt with godets

Trace round basic skirt block.

Draw in panel lines, transfer front dart to front panel line; mark godet points.

Cut out block and cut up panel lines.

Back panels Trace round back and side back panels.

Front Trace round front panel.

Side front Divide side panel into five sections to hipline. Cut along these lines, open each section approx. 2 cm at inner edge.

Trace round pattern.

Godet Draw a vertical line; mark points 1–2 the godet length. Decide width of godet, divide the width evenly each side of line, mark points 3 and 4. Square up from these points. Mark points 5 and 6 on these lines. 1–5 and 1–6 are the length of the godet; join points 5, 2, 6, with a curve.

23 Asymmetrical skirt

Trace round basic skirt block (double sections).

Draw in lower panel lines, divide lower panels into sections. Cut away lower panels, cut up sections.

Large side flounce On a new piece of paper draw a vertical line. Place side seams of lower panel to the line.

Open out each section equally at the hem the amount required for flare.

Trace round pattern.

Small side flounce Repeat the instructions to create small flounce.

24 Skirt with a flounce

Trace round straight skirt pattern.

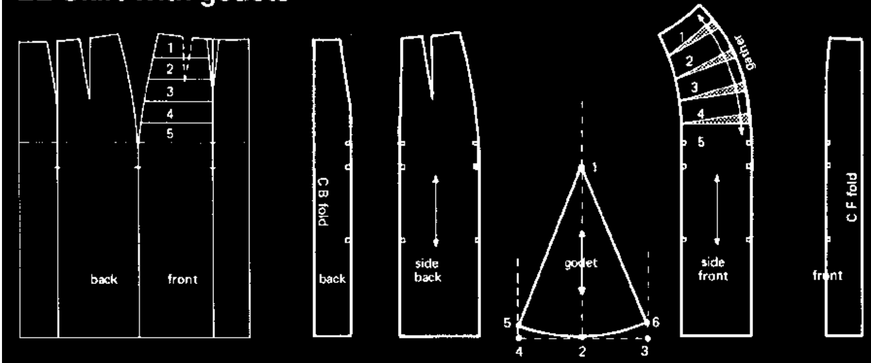
Draw in the lower panel lines; divide lower panels into sections. Cut away lower panels; cut up sections.

On a new piece of paper open sections approx. 4 cm at the top and 7 cm at the bottom.

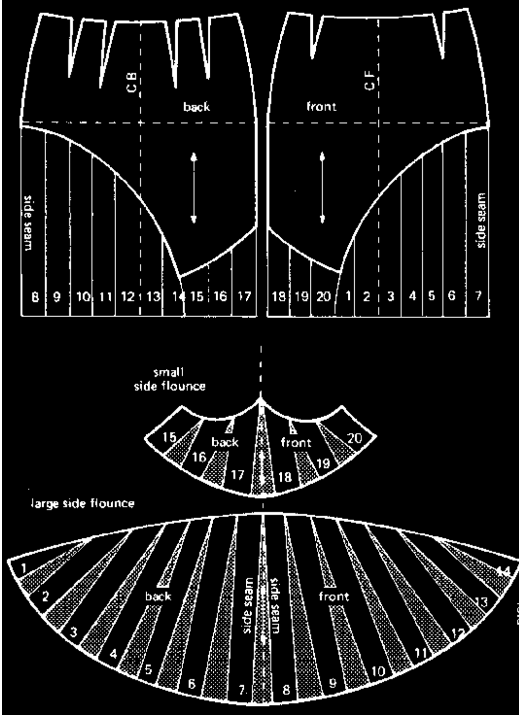
Trace round new pattern making good curves.

Note It is necessary to ensure that when curved pattern pieces are opened at the top, each section is laid on a line squared out from the line of the previous section (e.g. line 1–2).

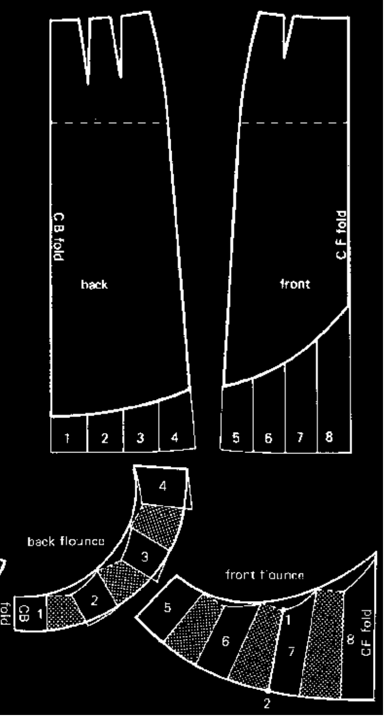
22 Skirt with godets


1
2
3
4
5
back
front
CB fold
back
side back
1
godet
5
6
4
2
3
1
2
3
4
5
gather
side front
C F fold
front

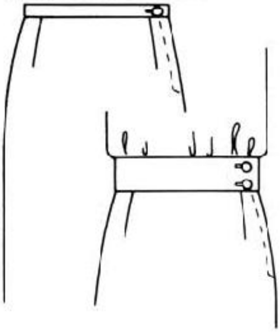
23 Asymmetrical skirt

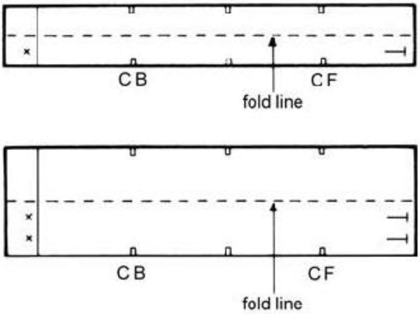

CB
back
CF
front
side seam
side seam
8
9
10
11
12
13
14
15
16
17
18
19
20
1
2
3
4
5
6
7
small side flounce
15
back
front
20
16
17
18
19
large side flounce
1
2
3
4
5
6
7
back
side seam
side seam
front
8
9
10
11
12
13
14

24 Skirt with a flounce

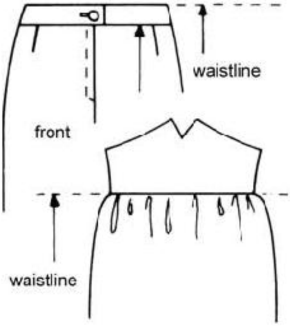

CB fold
back
front
C F fold
1
2
3
4
5
6
7
8
4
back flounce
3
2
CB fold
1
front flounce
5
6
1
7
8
CF fold
2

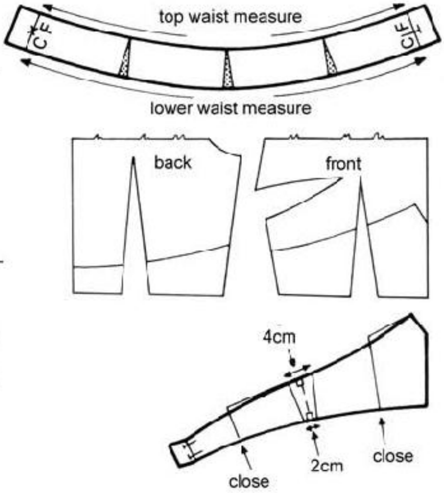
Straight waistbands



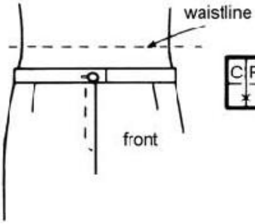

CB
CF
fold line
CB
CF
fold line

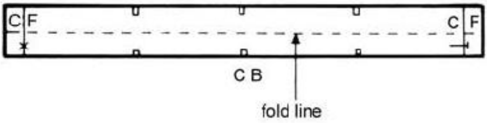
Shaped waistbands


waistline
front
waistline

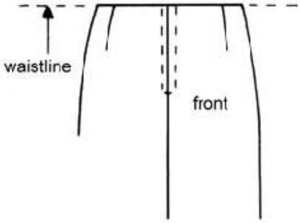

top waist measure
CF
CF
lower waist measure
back
front
4cm
2cm
close
close

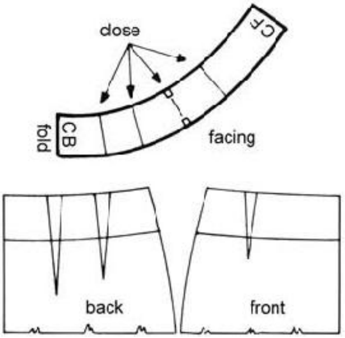
Hipster waistbands


waistline
front


CF
CF
CB
fold line

Faced waistbands


waistline
front


close
CF
fold
CB
facing
back
front

25 Waistbands

Straight waistbands

These waistbands are satisfactory if they are set on the waistline and are made in widths from 2.5–6 cm.

Draw waistband exact length and double the width. Mark centre back, centre front and side seam; mark fold line.

Add an underwrap of 4 cm.

Mark any buttonholes required.

The waistline and waistband of a skirt can be drafted to include a substantial amount of ease (e.g. 10 cm) to enable the waistband to be elasticated.

Shaped waistbands

Waistbands set below the waistline, or waistbands that reach high above the waist require shaping to fit the body.

Below waist Remove the waistband depth from top of skirt pattern.

Measure the new low waistline. Make a straight waistband the normal waist measurement, and single width.

Cut waistband at centre back and side seams, open the lower edge until it becomes the low waistline measurement.

Add underwrap and topwrap; mark buttonholes.

Above waist Trace shaped bodice block. Draw in waistband on block.

Cut out waistband; close darts and overlap side seams 4 cm at top, 2 cm at bottom. Trace round pattern.

Add topwrap and underwrap, mark buttonholes.

Note All shaped waistbands have to be cut singly and faced.

Hipster waistbands

Mark lowered waistline on skirt pattern approx. 6 cm below waistline and use low waist measurement for waistband.

Only very narrow straight waistbands can be used (maximum 2.5 cm). For deeper bands use the shaped waistband described above.

Faced waistbands

Trace round skirt pattern to hipline.

Mark in the lower edge of facing.

Cut out facings; close darts and place side seams together.

Trace round pattern (facing can be cut in two separate pieces).

PART ONE: CLASSIC FORM CUTTING

7 Fitted trouser blocks and adaptations

The classic tailored trouser block

100

Tailored shorts

100

1 Culottes

102

2 Pleated

culottes

102

3 Flared

culottes

102

4 Trousers with pleated waistline

104

5 Flared and gathered trousers

104

The very close fitting trouser/jeans block

106

6 Basic jeans adaptation

106

7 Hipster jeans adaptation

The classic tailored trouser block

Measurements required to draft the block

20–21 2

cm.

21–22 quarter waist plus 4.25 cm; join 21–22 to Measurements from any of the size charts in this touch the horizontal line from 0.

book (page 12–14) or personal measurements (see

9–23 half the measurement 5–9.

page 178) can be applied to the block.

23–24 0.5

cm.

A size 12 from the size chart on page 12 (for fashion Join 21–19 and 19–24 with a curve touching a point: garments) is used for this illustrated example.

sizes 6–8 4

cm

from

16

sizes 10–14 4.25

cm from

16

Note There is 1 cm ease in the waistline of the sizes 16–20 4.5

cm from

16

trousers. The waistline of the trousers should always sizes 22–26 4.75

cm from

16

be eased onto the waistband.

17–25 quarter hip plus 1.5 cm.

waist

68 cm

body rise

28 cm

12–26 1

cm.

hips 94

cm

waist

to

floor

104 cm

13–27 1

cm.

waist to hip

20.6 cm

trouser bottom

Draw in side seam through points 22, 25, 27, 26;

width (page 13)

22 cm

curve hipline outwards 0.5 cm, curve 25–27 inwards

0.5 cm.

Front

14–28 1

cm.

Square both ways from 0.

15–29 1

cm.

0–1 body rise; square across.

Draw inside leg seam 24, 29, 28; curve 24–29 inwards

0–2 waist to hip; square across.

1.25 cm.

0–3 waist to floor measurement; square across.

Divide the line 21–22 into three parts. Mark points 30

1–4 half the measurement 1–3 minus 5 cm; square and 31. Using the line 21–22, square down from 30

across.

and 31.

1–5 one twelfth hip measurement plus 1.5 cm;

Construct darts on these lines 2 cm wide; length from square up to 6 and 7.

point 30 12 cm, length from point 31 10 cm.

6–8 quarter hip measurement plus 0.5 cm.

Curve hemline down 1 cm at point 3.

5–9 one sixteenth hip measurement plus 0.5 cm.

Note For extra ease in the crutch line see the **7–10** 1 cm; join 10–6, join 6–9 with a curve touching adaptation on page 104, ref. 4.

a point:

sizes 6–8 2.75

cm from

5

Trace off back and front sections. It is usual for the sizes 10–14 3

cm

from

5

back block to face to the left and the right block to sizes 16–20 3.25

cm from

5

face to the right, particularly if the design requires sizes 22–26 3.5

cm from

5

complicated adaptations.

10–11 quarter waist plus 2.25 cm.

Construct a dart on the line from 0; length 10 cm,

Tailored shorts

width 2 cm.

3–12 half trouser bottom width minus 0.5 cm.

Shorts can be constructed from any of the trouser

4–13 the measurement 3–12 plus 1.3 cm (sizes 16–20

blocks depending on the style.

1.5 cm; 22–24 1.7 cm).

Trace round trouser block required.

Draw in side seam through points 11, 8, 13, 12; curve Draw a line parallel to the body rise line at depth hipline outwards 0.5 cm.

required.

3–14 half trouser bottom width minus 0.5 cm.

Curve the back hemline downwards 1 cm.

4–15 the measurement 4–13.

Continue adaptation.

Draw inside leg seam 9, 15, 14; curve 9–15 inwards

0.75 cm.

Alternative leg shaping

Back

The fashion outline of trouser legs constantly alters; **5–16** quarter the measurement 1–5; square up to 17

the diagram shows alternative leg shaping. If classic on the hipline, 18 on the waistline.

shaping is required, equal amounts are added or

16–19 half the measurement 16–18.

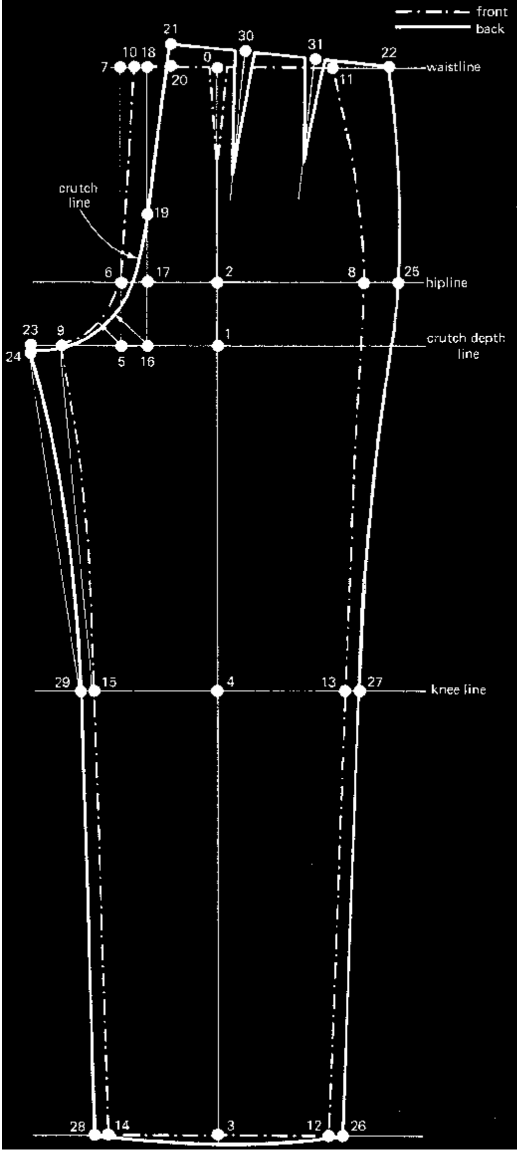
subtracted to each side of each leg as shown in the

18–20 2

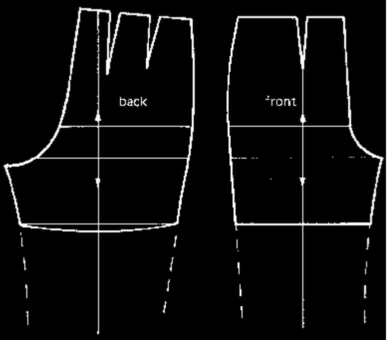
cm.

diagram.

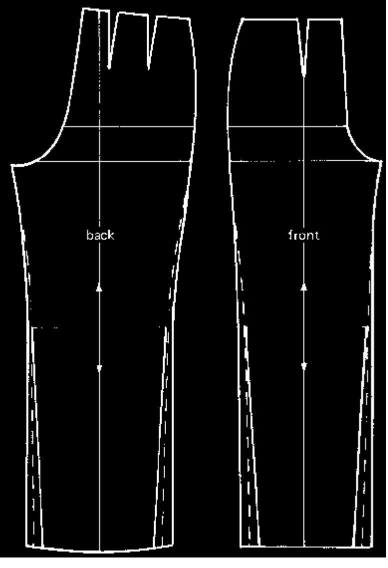
The classic tailored trouser block


front
back
waistline
hipline
crutch depth line
knee line
crutch line
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

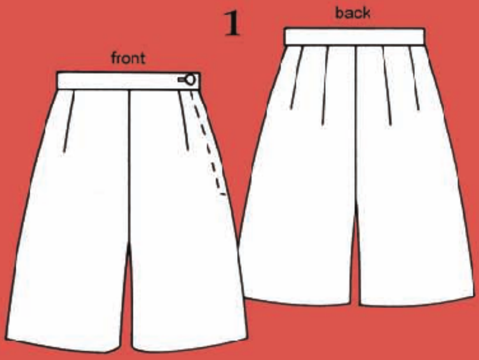
Tailored shorts



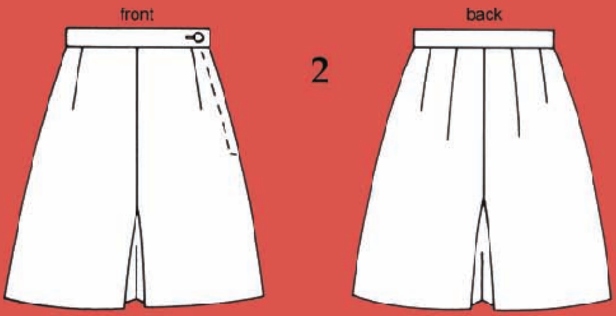
Alternative leg shaping



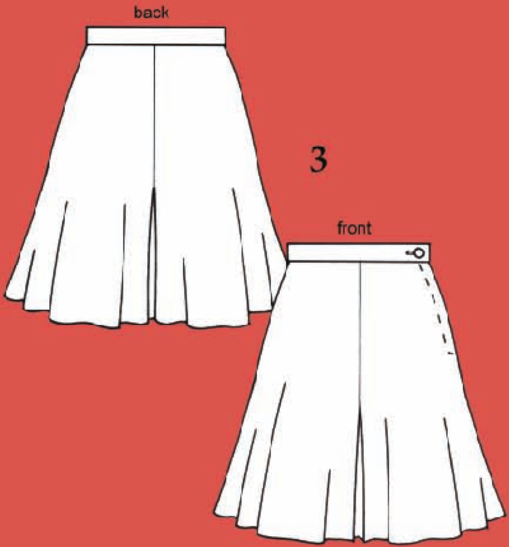
1



2



3



1 Culottes

Draw round straight skirt pattern,

mark the hipline. Mark hemline depth.

Cut off.

Back Mark 0 at centre back waist.

0–1 body rise plus 1.5 cm.

0–2 finished length.

1–3 half 0–1 plus 1 cm.

1–4 one eighth hip measurement plus

2 cm; square down to hemline.

Join 3 to 4 with a curved line touching

a point 3 cm from 1.

Front Mark 5 at centre front waist.

5–6 body rise plus 1.5 cm.

5–7 finished length; square across.

8 is midway between 5 and 6.

6–9 one eighth hip measurement less

2 cm; square down to hemline.

Join 8 to 9 with a curved line touching

a point 4 cm from 6.

2 Pleated culottes

Trace round culotte pattern.

Separate inside leg sections from the skirt section.

On a new piece of paper trace round skirt sections.

Add an 8 cm vent pleat (total 16 cm) to centre front and centre back.

Place inside leg sections to edge of pleat; trace round.

Fold pleats towards the side seams and cut out patterns.

3 Flared culottes

Trace round culotte pattern.

Back Drop vertical lines from the base of darts to hem.

Cut out pattern and cut up the lines.

Close darts to make flare at the hemline.

Trace round pattern on a new piece of paper. Cut out.

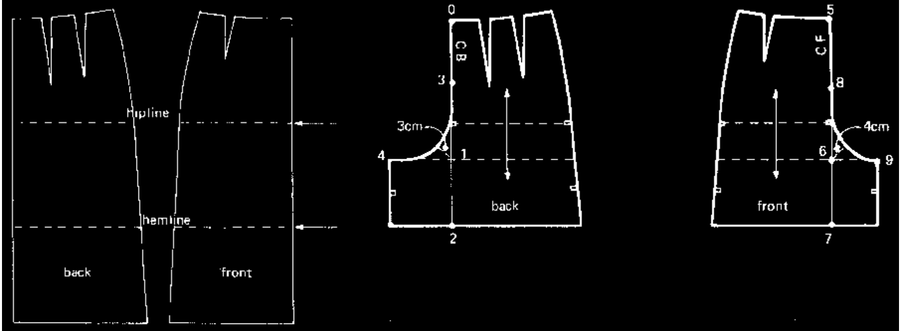
Front Drop vertical lines from the front dart and a point midway between dart and the centre front.

Close dart to make flare at the

hemline, open the other vertical line to make the same amount of flare.

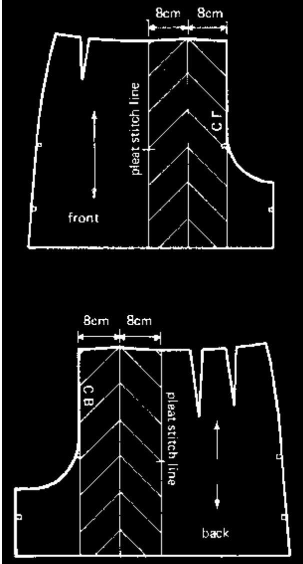
Trace round pattern on a new piece of paper. Cut out.

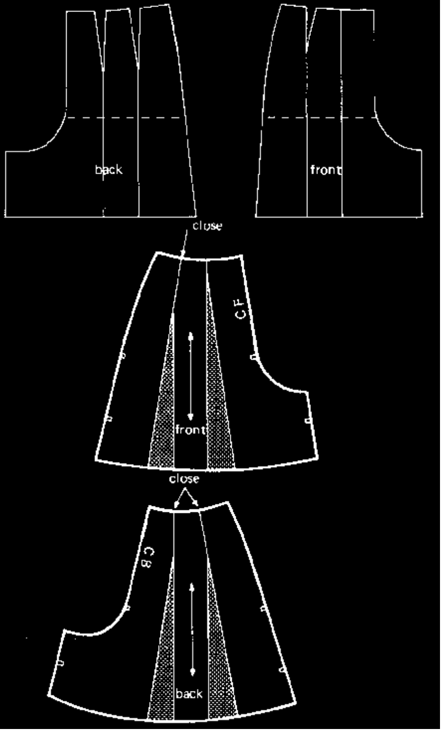
1 Culottes

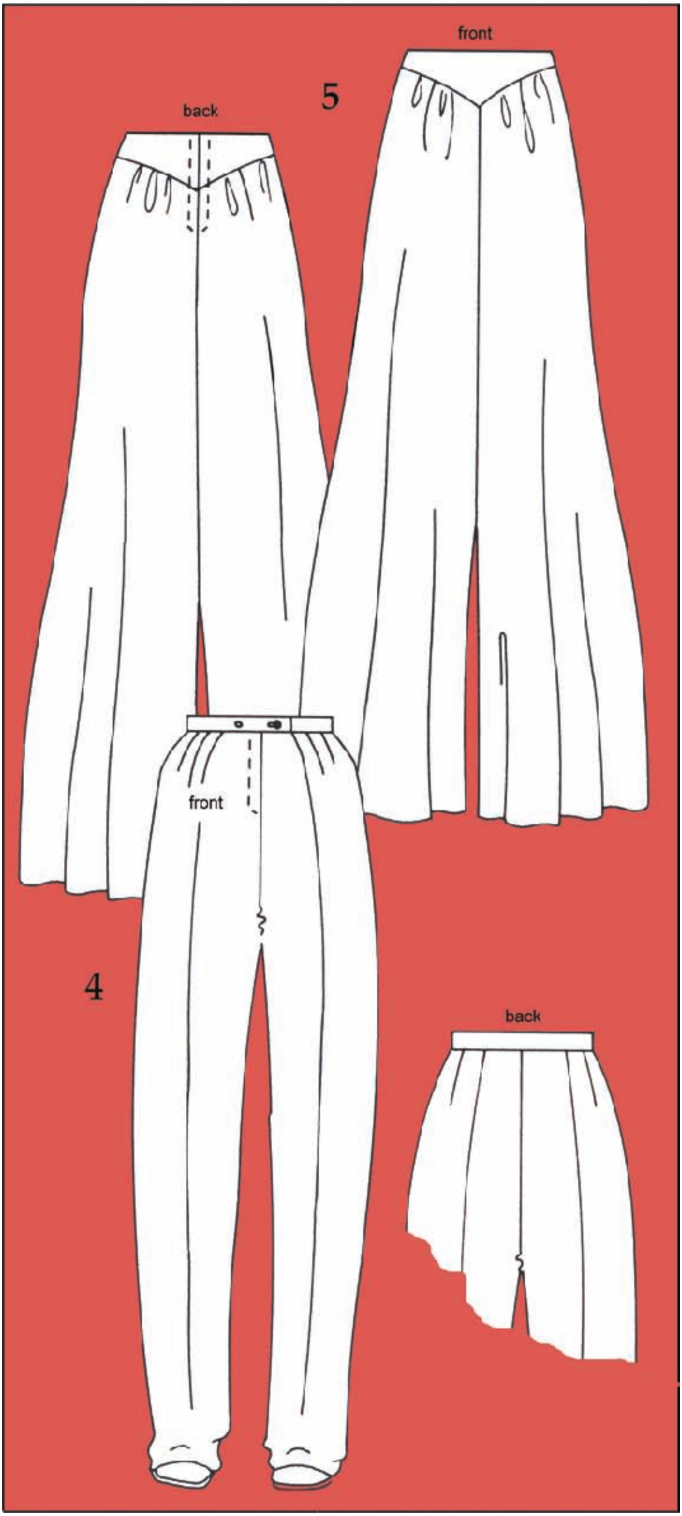

Hipline
hemline
back
front
0
C B
3
3cm
1
4
back
2
5
C F
8
4cm
6
9
front
7

2 Pleated culottes

3 Flared culottes


8cm
8cm
pleat stitch line
C F
front
8cm
8cm
C B
pleat stitch line
back


back
front
close
C F
front
close
C B
back


front
5
back
front
4
back

4 Trousers with pleated waistline

Trousers that are full at the waistline and shaped in at the hem.

Trace round basic trouser block.

Back Cut along the hipline and open a wedge approx. 3 cm wide at back crutch line.

Mark points 1 and 2 on hemline 1.5 cm in from leg seam.

Draw lines from 1 and 2 to knee line.

Front Trace round front trouser block. Cut across knee line, divide top section along the grain line.

Open 5 cm at waistline, extend waistline by 3.5 cm at side seam. With dart allowance this gives 10.5 cm fullness.

Divide this into three 3.5 cm pleats.

Mark points 3 and 4 on hemline 1.5 cm in from leg seam.

Draw lines from 3 and 4 to knee line.

Note More fullness can be added at the waistline by opening the grain line further at the waistline and making deeper pleats.

Waistband Construct waistband required (page 98).

5 Flared and gathered trousers

Trace round basic trouser block.

Square down to hem from points 1, 2, 3, 4 on knee lines.

Draw yoke lines on back and front trousers. Cut away yokes. Close darts. Draw round new shapes.

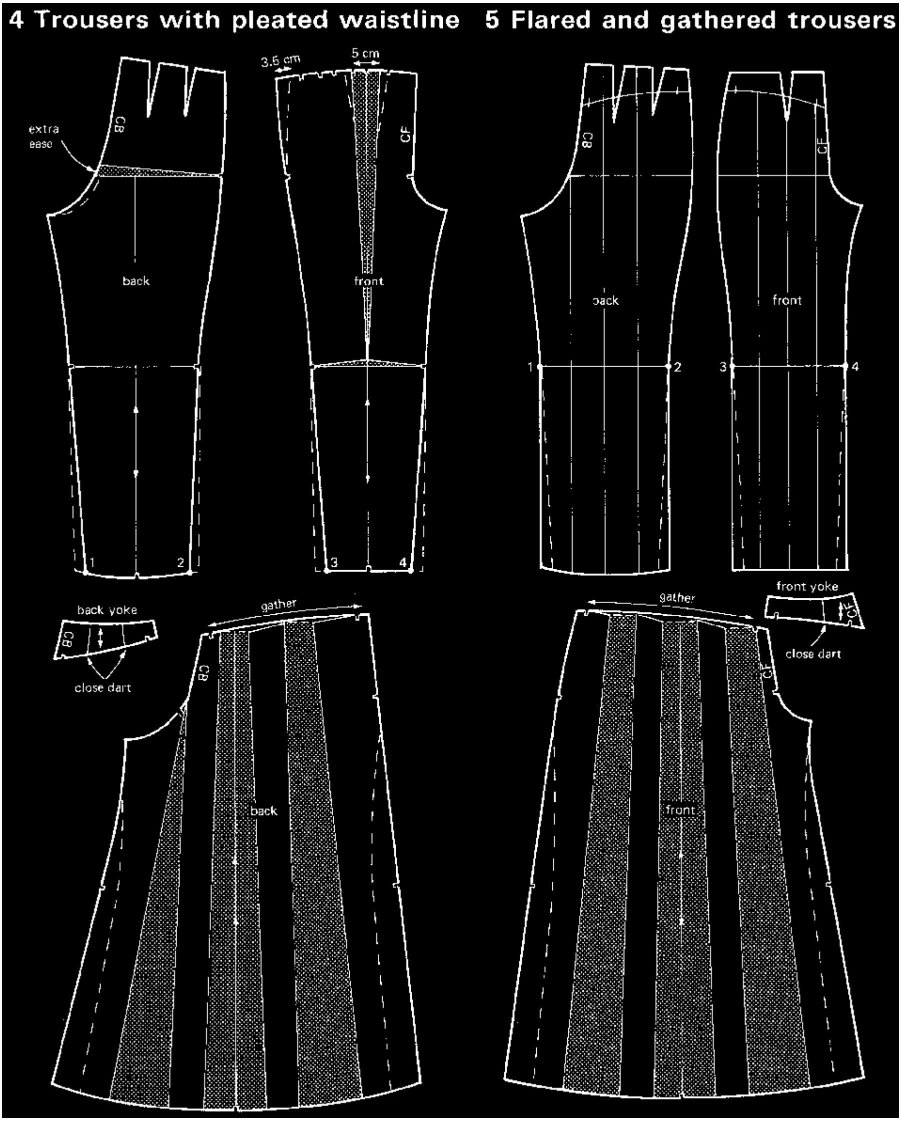
Divide back and front trousers into four sections at knee line. Square up and down. Erase darting.

Cut up vertical lines, open sections so that the opening at the hem is double that of the waist (example shows 6 cm at waist, 12 cm at hem).

The vertical line to the back crutch line is opened only at the hem.

Add 5 cm flare to hem of inside leg

seams and side seams.



4 Trousers with pleated waistline **5 Flared and gathered trousers**

3.5 cm
5 cm
extra ease
CB
CF
back
front
1
2
3
4
back yoke
close dart
gather
CB
back
CB
back
CF
front
1
2
3
4
gather
front yoke
CF
close dart
CF
front

Draw round new shapes.

The very close fitting trouser/jeans block

5–16 quarter measurement 1–5; square up to 17 on the hipline, 18 on the waistline.

Trousers or jeans made from close fitting blocks are **16–19** half the measurement 16–18 plus 1 cm (2 cm).

often made from fabrics with slight stretch to

18–20 2

cm.

provide a ‘comfort fit’. This block is drafted so that **20–21** 2

cm.

the top of the waistband sits along the waistline.

21–22 quarter waist plus 4 cm (4.5 cm). Join 21–22 to Many jeans are drafted to sit below it. See the touch the line squared out from 0.

instructions in brackets (2 cm below the waistline),

9–23 the measurement 5–9 minus 0.5 cm.

or the ‘hipster’ block on page 108 can be used.

23–24 0.5 cm. Join 21–19 and 19–24 with a curve The wedge in the back crutch line should be used touching a point:

for close fitting trousers (see the jeans adaptation, sizes 6–14 4.5

cm

from

16

point 17–34).

sizes 16–24 4.75

cm

from

16

17–25 quarter hip measurement plus 1.5 cm.

12–26 2

cm.

Measurement required to draft the block

13–27 2

cm.

Draw side seam 22, 25, 27, 26; curve 22–25 out

Measurements from any of the size charts in this

0.5 cm, continue the side seam curve to 27 as shown.

book (page 12–14) or personal measurements (see

14–28 2

cm.

page 178) can be applied to the block.

15–29 2

cm.

A size 12 from the size chart on page 12 (for fashion Draw inside leg seam 24, 29, 28; curve 24–29 in 1 cm.

garments) is used for this illustrated example.

21–30 half the measurement 21–22; square down from line 21–22. Construct a dart on this line, width waist 68 cm

body rise

28 cm

1.25 cm (1 cm), length 8 cm.

hips 94

cm

waist

to

floor

104 cm

waist to hip

20.6 cm jeans bottom

width (page 13)

waistband depth 4 cm

19 cm

6 Basic

jeans

adaptation

Front Trace off front section; mark point 6.

Front

Draw in curved pocket line 31–32 and pocket bag.

Square both ways from 0.

Cut off side piece along the line 31–32; add 3.5 cm

0–1 body rise minus 4 cm (6 cm); square across.

from 31–32.

0–2 waist to hip minus 4 cm (6 cm); square across.

Draw in fly piece shape to point 33, 1 cm below 6.

0–3 waist to floor measurement; square across.

Fly piece width 3.5–4 cm. Trace off fly piece. Trace **1–4** half the measurement 1–3 minus 5 cm; square off pocket bag along the line 31–32.

across.

1–5 one twelfth hip measurement; square up to 6

Back Trace off back sections; mark points 17, 21, 22, and 7.

24, 25. Cut along hipline 17–25, open a wedge

6–8 quarter hip measurement minus 1.5 cm.

approx. 3.5 cm wide at 17.

5–9 one sixteenth hip measurement minus 1 cm.

17–34 1 cm; draw in new crutch line from 21–24.

7–10 2

cm.

Draw in pocket design.

Join 10–6 and 6–9 with a curve touching a point:

21–35 quarter the measurement 21–34.

sizes 6–14 3.25 cm from 5

22–36 quarter the measurement 22–25.

sizes 16–24 3.5 cm from 5

Cut off yoke along the line 35–36; close dart. Curve

10–11 quarter waist plus 1.5 cm (2 cm).

the lines 21–22 and 35–36.

3–12 half jeans bottom width minus 1 cm.

Patch pocket Trace off back pocket.

4–13 the measurement 3–12 plus 2 cm.

Draw side seam 11, 8, 13, 12; curve 11–8 out 0.25 cm; **Waistband** The straight waistband is cut 8 cm continue the side seam curve to 13.

(11 cm) larger than the waist measurement to fit the **3–14** half jeans

bottom width minus 1 cm.

lower waist positions.

4–15 the measurement 3–14 plus 2 cm.

Square both ways from 37.

Draw inside leg seam 9, 15, 14. Curve in 9–15

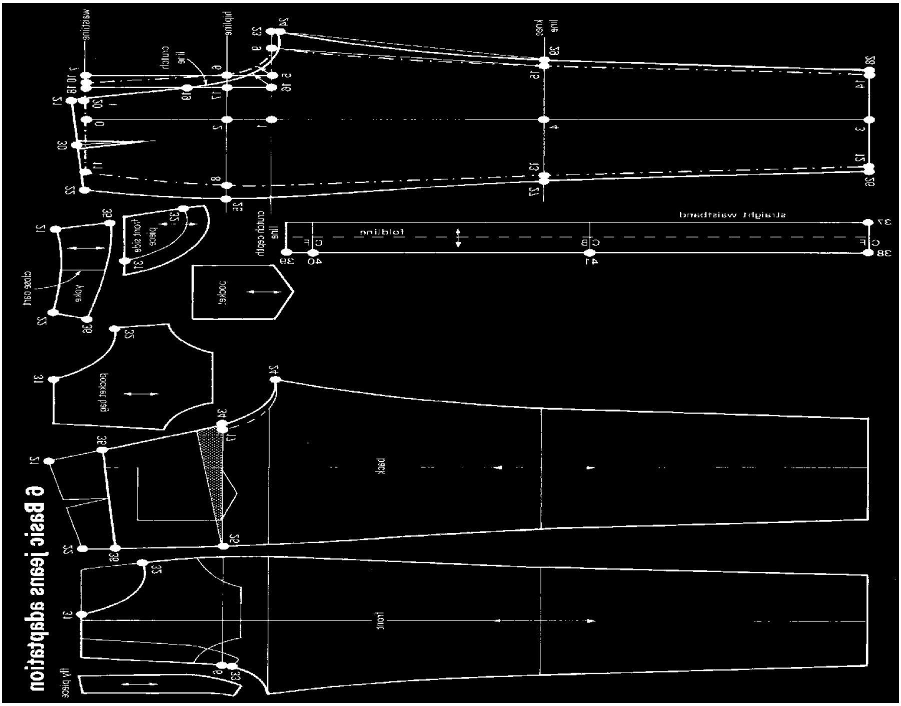
37–38 twice waistband depth; square across.

0.75 cm.

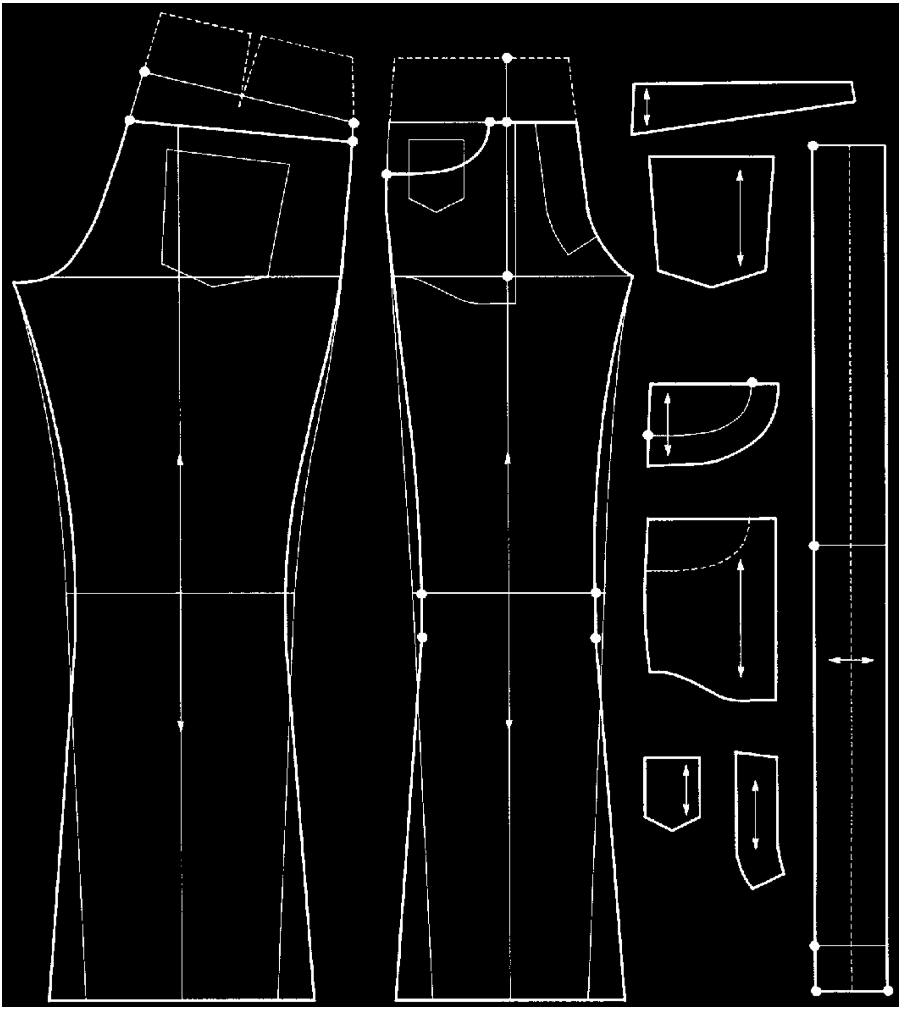
38–39 waist measurement plus fly width; square up.

Back

39–40 fly width; square up.



6 Basic jeans adaptation



7 Hipster jeans adaptation

11

3

CB

CB

back yoke

4

2

13

0

16

12

CF

5

CF

pocket

fold line

1

back

front

front side

piece 4

5

18

CB

7

6

pocket

fold

bag

9

8

ticket

pocket

waistband

fly

piece

CF

17

15

14

38–41 half the measurement 38–40; square up.

Shape new side and inside leg seams.

Mark fold line down the centre.

Shape in approx. 0.5 cm at the knee line to 6 and 7.

Square down 5 cm from 6 and 7 to 8 and 9.

7 Hipster

jeans

adaptation

Add approx. 4 cm flare to each side of the hemline.

Join 8 and 9 to new hemline points.

Trace off the basic jeans block with wedge at the

Back Draw a line 10–11 parallel to the old

crutch line.

waistline, the distance is the measurement 2–3 on

Front Mark point 1 on crutch depth line of centre front section. Draw in a new yoke line 12–13 from a line.

point approx. 2.5 cm below 10.

1–2 body rise minus 11 cm; square across for new Draw in back pocket.

low waistline. Mark point 3 on old waistline.

Trace off back yoke. Trace off back pocket.

Draw in curved pocket line 4–5 and pocket bag.

Shape new side and inside leg seams as for the front

Draw in ticket pocket.

pattern.

Cut off side piece along the line 4–5; add 3.5 cm from **Waistband** Measure the waistline of the new draft.

4–5.

Square both ways from 14.

Trace off pocket bag. Trace off ticket pocket.

14–15 twice waistband depth; square up.

Draw in fly piece shape; fly piece width 4 cm.

15–16 new waist measurement plus 4 cm fly width; Trace off fly piece.

square across.

PART ONE: CLASSIC FORM CUTTING

8 Complex adaptations of the bodice blocks: dresses, jackets, coats These adaptations are all based on *form cutting* with the bust dart. However, the amount of darting that the designer uses should be influenced by the fabric selected.

Fabrics with stretch characteristics will expand to cover the form, so many designers of casual stretch garments use *flat cutting*. However, it can be very rewarding to use fabrics with some stretch content with all kinds of *form cutting*. This allows the designer to cut closer to the form yet still create some structure in the design.

Whilst many casual garments are *flat cut*; they can also be *form cut* using the easy fitting jacket and coat blocks (see adaptation ref. 5 page 128).

Lingerie and form fitting dresses

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122

Jackets and coats

124

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124

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124

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126

4 Fitted coat

126

5 Fitted casual jacket

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Classic coat and jacket hems and seam allowances

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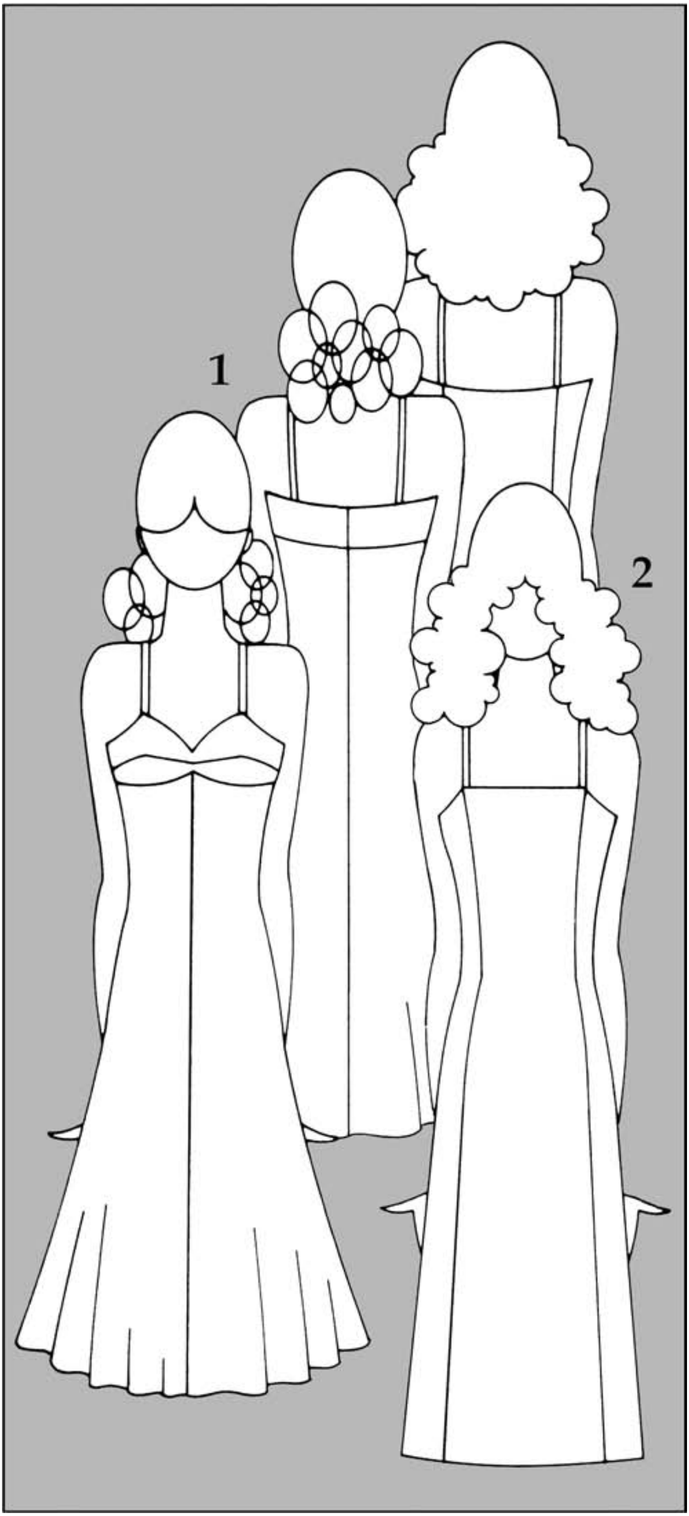
Classic coat and jacket linings

130

This book has been written for beginners. Although a tailored jacket block and a few tailored styles are included, to cover the cutting of tailored garments in greater depth see the book *Pattern Cutting for Tailored Jackets: Classic and Contemporary* (also by Winifred Aldrich) .


1
2

Lingerie and form fitting dresses

For close fitting lingerie, decollete night and evening wear, widen the dart of the close fitting dress block and reduce some of the ease.

Trace round the close fitting dress block.

Reduce each side seam 1.5 cm at bust, 0.5 cm at the waist to 0.25 cm at the hips.

Double the width of the bust dart.

Some lingerie and most ‘lingerie type’ dresses made in fabrics with stretch, that are cut on the cross or are body-skimming rather than body—fitting, do not always need the wider dart and some may even use a reduced dart.

The skirts or panels of the petticoats can be cut on the cross in woven fabric or on the straight in knitted fabrics. If non-stretch fabric is used a small opening may be required at the back or side seam.

1 ‘Bra’

top

Trace round lingerie block to required length.

Draw in shaped top of front and back bra. Draw horizontal line through bust point.

Trace off bra sections. Cut out.

Bra sections Close back dart, trace round.

Widen bust dart by 1.5 cm. Cut across vertical line. Close top and bottom darts.

Trace round upper and lower sections.

Skirt Rub out waist darts, take amount equivalent of dart shaping out at the seams, half at side seams and half at centre front and centre back seams.

Add 5 cm flare to hem of front and back seams, 8 cm flare to side seams.

2 Vertical seams

Trace round lingerie block to required length.

Draw in shape of petticoat top. Widen bust dart by 1 cm. Drop vertical lines from the base of waist darts. Cut out panels, trace round. Shape seams of panels.

Add 2 cm flare to hem of panel seams, 3 cm flare to hem of side seam.

3 Strapless bodice

Lower waistline 1 cm at centre front on lingerie block; join to centre back line.

Complete adaptation of the princess line petticoat to waistline or depth required.

Trace off panels.

Shape back panel at centre back waistline 1 cm.

Reduce both side seams by 1 cm at top edge

only; redraw top edge shaping.

Shape waist of front panel seam on front and

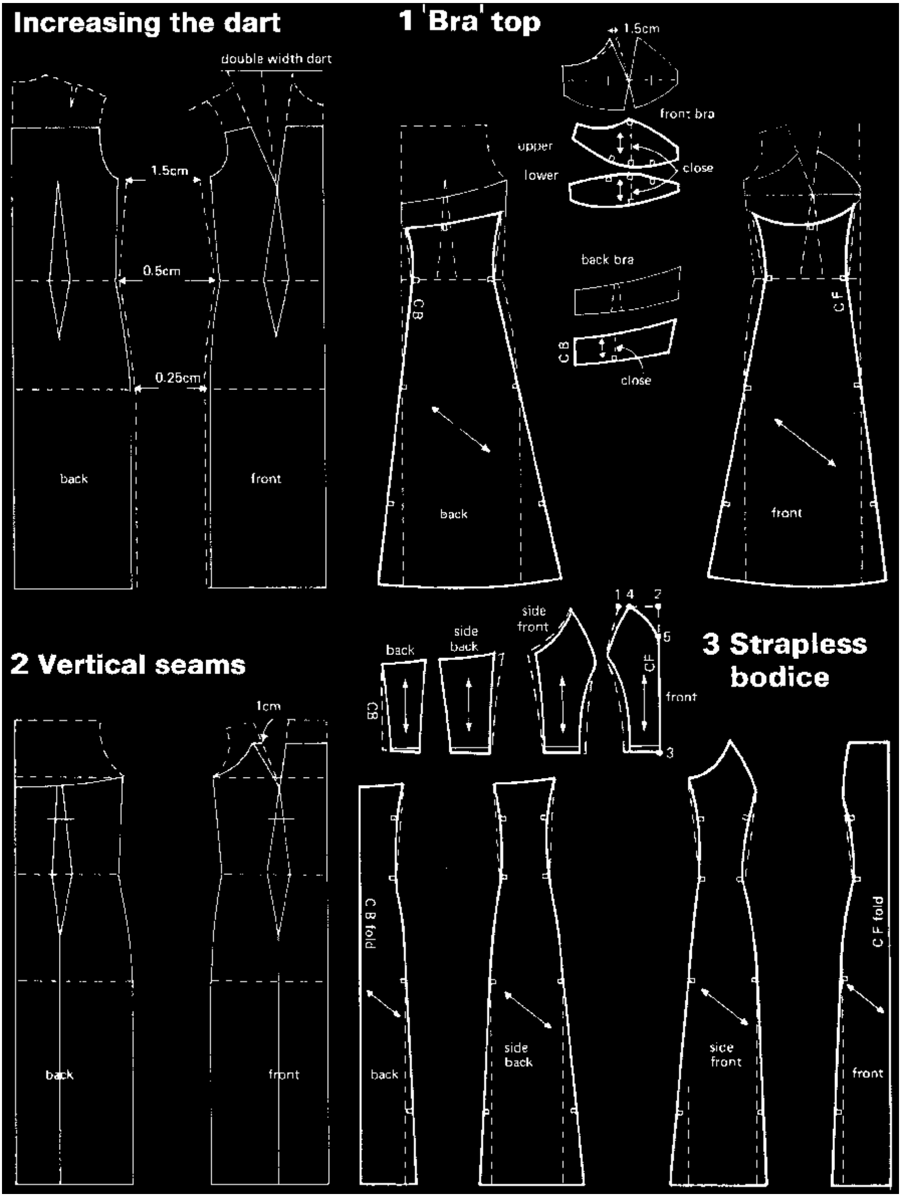
side front 1 cm.

Mark points 1, 2, 3 on front panel.

1–4 = one third measurement 1–2; 2–5 = one fifth

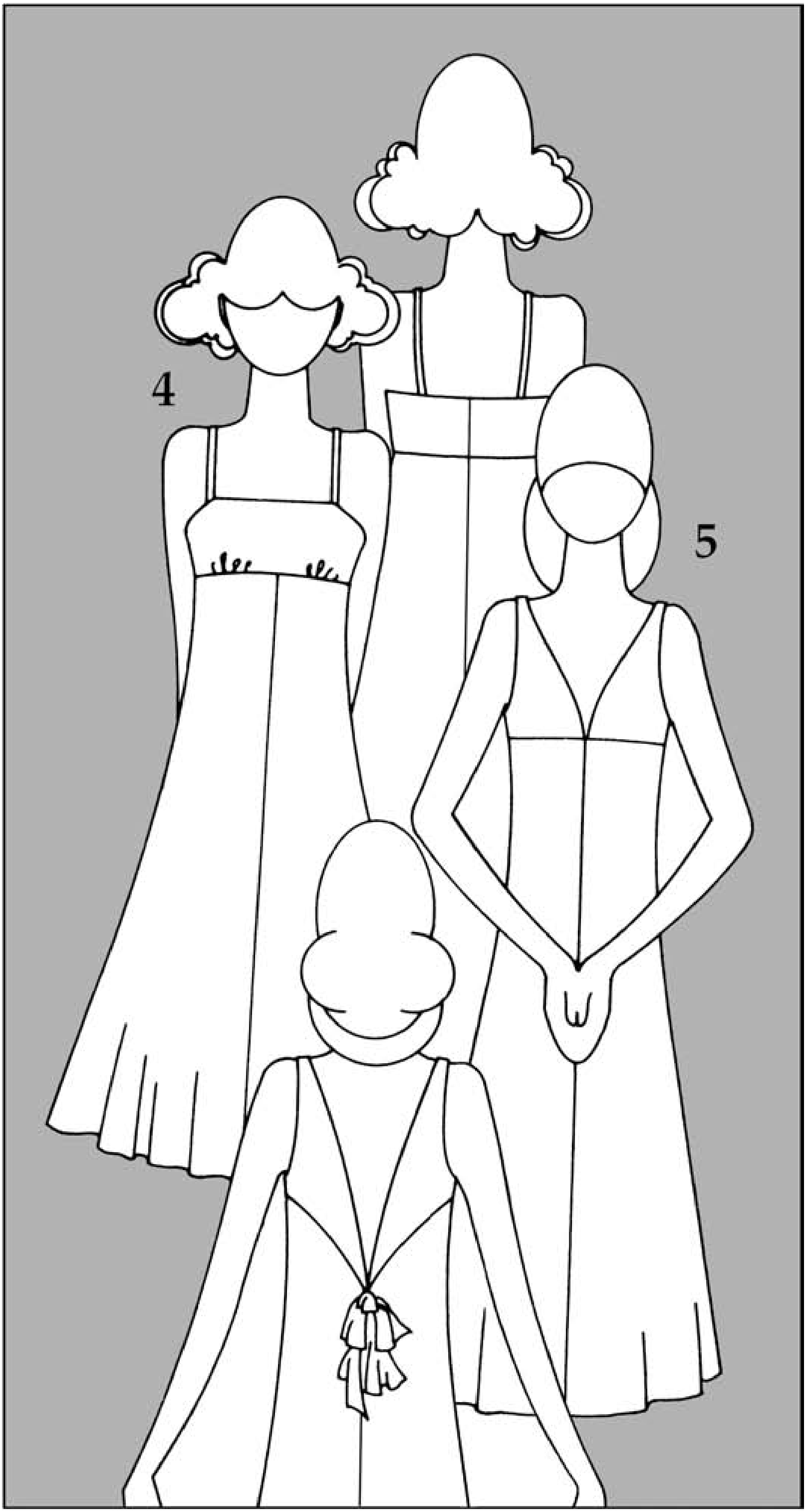
measurement 2–3.

Draw in new shaping at top edge.


Increasing the dart
double width dart
1.5cm
0.5cm
0.25cm
back
front
1 'Bra' top
1.5cm
front bra
upper
lower
close
back bra
CB
close
CB
back
CF
front
2 Vertical seams
1cm
back
front
back
side back
side front
1 4 2
5
CF
front
3
CB
3 Strapless bodice
C B fold
back
side back
side front
C F fold
front

Increasing the dart

2 Vertical seams


4
5

The skirts hang better if woven fabric is cut on the cross.

4 Camisole top

Trace round lingerie block. Drop vertical lines from base of waist darts. Draw in camisole top. Shape the high waistline with slight curve.

Cut away top sections. Shape side seams.

Shape in front and back waist 2 cm.

Top sections Close back dart, trace round section. Widen bust dart 1.5 cm. Close bust dart, trace round pattern.

Skirt Reshape waist darts from high waistline to base of darts.

Cut out skirt. Cut up vertical lines. Close darts and insert 7 cm flare at hem. Grain line runs down centre of opening.

Add 6 cm to hem of side seam and 4 cm flare to centre front and centre back seams.

5 ‘V’ neck

Trace round complete lingerie block. Draw in shaped waistline from back waist point.

Back bodice Draw in 'V' neck and armscye shape. Make 1 cm dart in neckline. Cut out section, close neck dart and waist dart.

Trace round with smooth curved lines.

Front bodice Draw in neckline (check distance from neck point equals that on back).

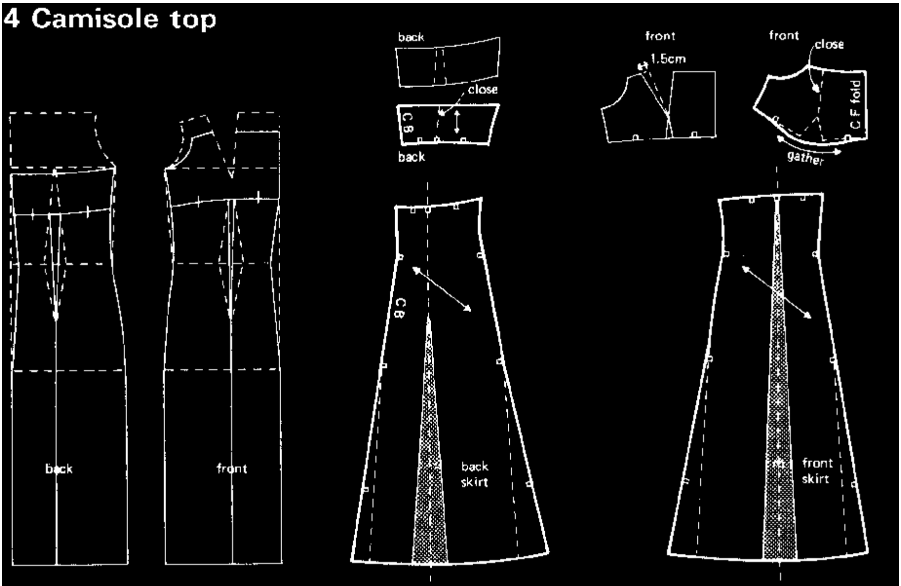
Cut out section, close bust dart, trace round with smooth curved lines.

Skirts Rub out waist darts, shape in side and front seams as shown, the same amount that is removed by closing the darts in the upper sections.

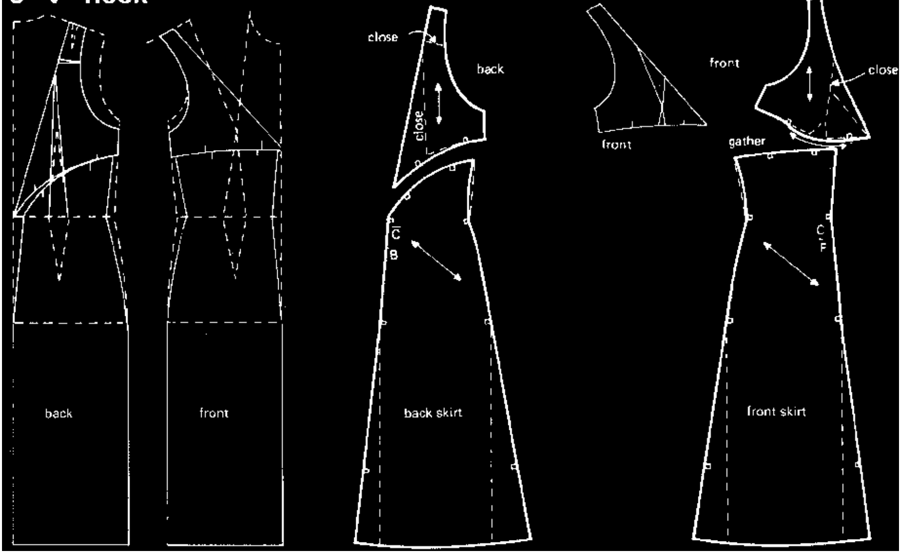
Cut out skirts. Trace round.

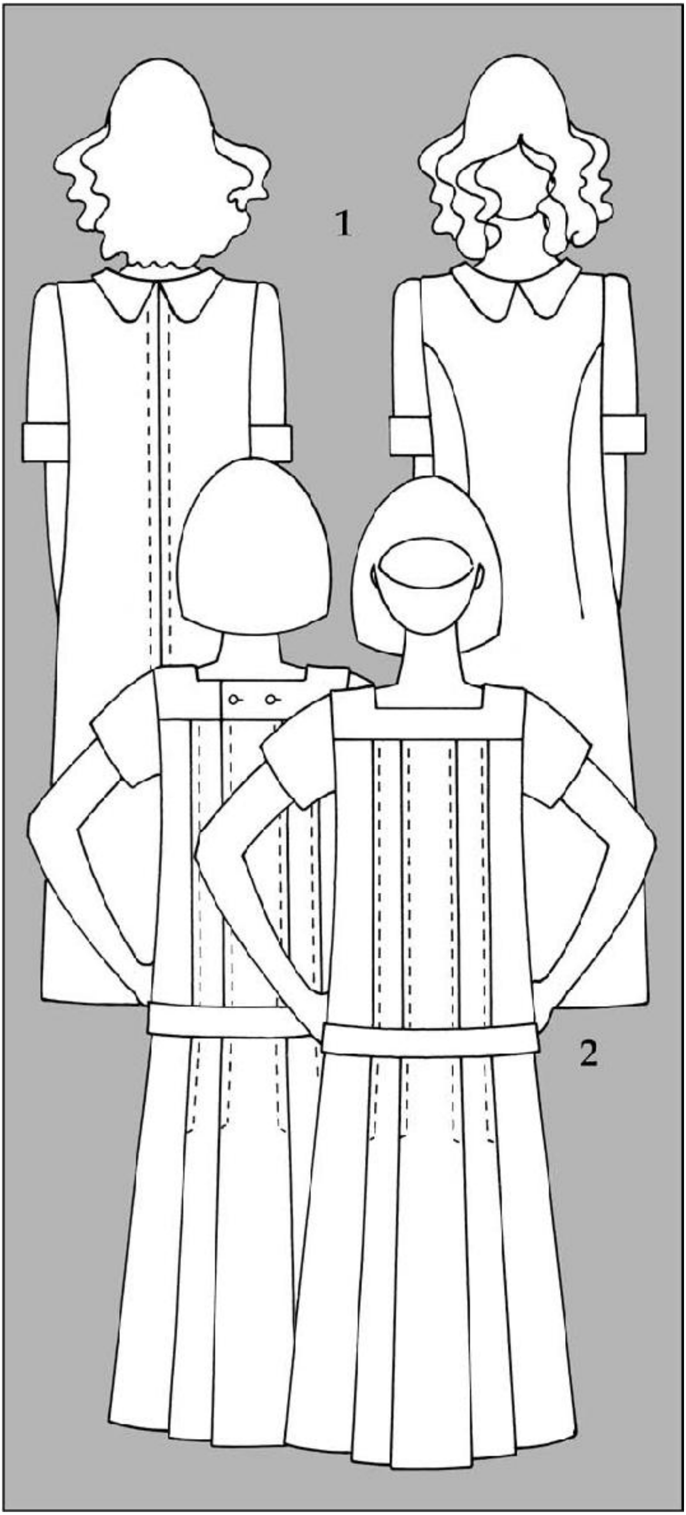
Add 7 cm flare to hem of centre front and centre back seams, 10 cm flare to hem of side seam.

4 Camisole top


back
close
C B
back
front
1.5cm
front
close
C F fold
gather
back
front
C B
back
skirt
front
skirt

5 'V' neck


close
back
close
front
front
close
gather
C B
C F
back
front
back skirt
front skirt


1
2

Dresses and 'dressmaker' jackets

Many styles are based on the shift dress, and the fit depends on whether a close fitting or easy fitting block is chosen for the adaptation. Shaping at the waistline can be varied.

1 Basic shift dress

Trace round one-piece dress block.

Draw in curved line from armscye to front dart.

Cut up side seam, cut out block.

Front Cut up curved line, close bust dart, trace round. Lower neckline.

Shape side seam and top of dart.

Add 3 cm flare to hem at side seam.

Back Rub out back waist dart. Lower neckline. Shape side seam.

Add 3 cm flare to hem at side seam.

Collar Diagram shows two-piece flat collar (ref. 1 page 70).

Sleeve Design shows lengthened short sleeve (ref. 6 page 50) and straight cuff with facing (page 68).

2 Styled shift dress

Trace round easy fitting dress block without waist shaping. Cut up side seam, transfer bust dart to underarm.

Back and front sections Draw in square neckline, yoke lines and low waistband.

Drop parallel pleat lines from back and front yokes.

Mark points 1 and 2 on back yoke line.

Back bodice Trace off back bodice, cut up pleat lines, open approx. 5 cm; mark fold line down centre of pleats.

Back yoke Trace off back yoke; mark point 3 at centre back, 3–4 is the measurement 1–2 on back yoke line. Mark buttonhole positions.

Front bodice Trace off front bodice, cut up pleat lines, open approx. 5 cm; mark fold line down centre of pleats. Close bust dart (the dart then becomes a part of outer pleat).

Front yoke Trace off front yoke.

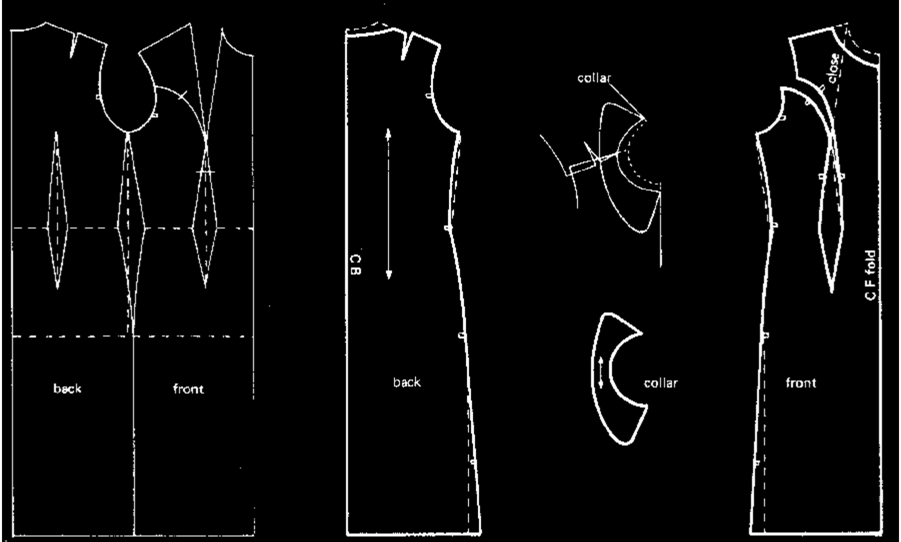
Back and front skirts Trace off skirt sections; cut up pleat lines and open approx. 8 cm. Mark fold line down centre of each pleat.

Low waistband Trace off back and front waistbands, join at side seam.

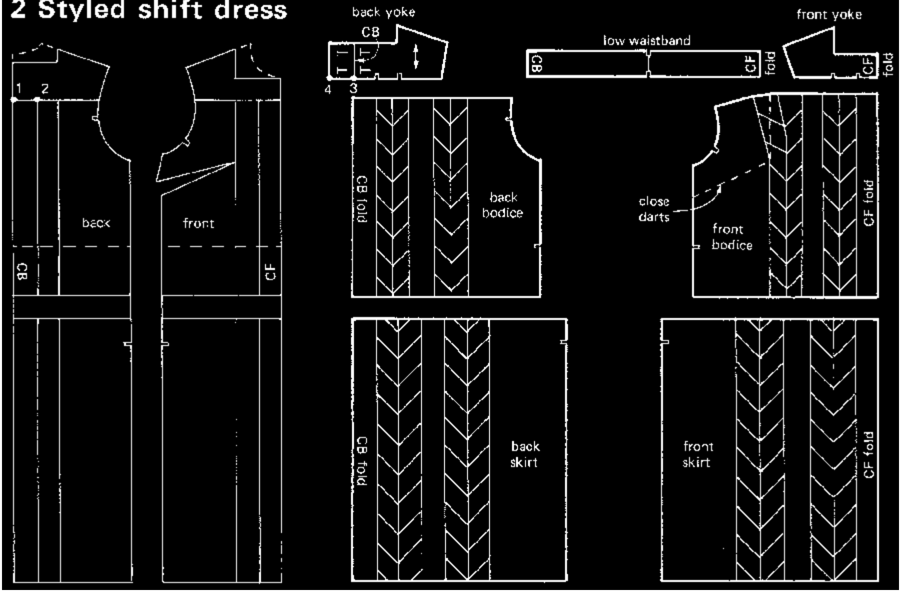
Sleeve Short sleeve (ref. 6 page 50).

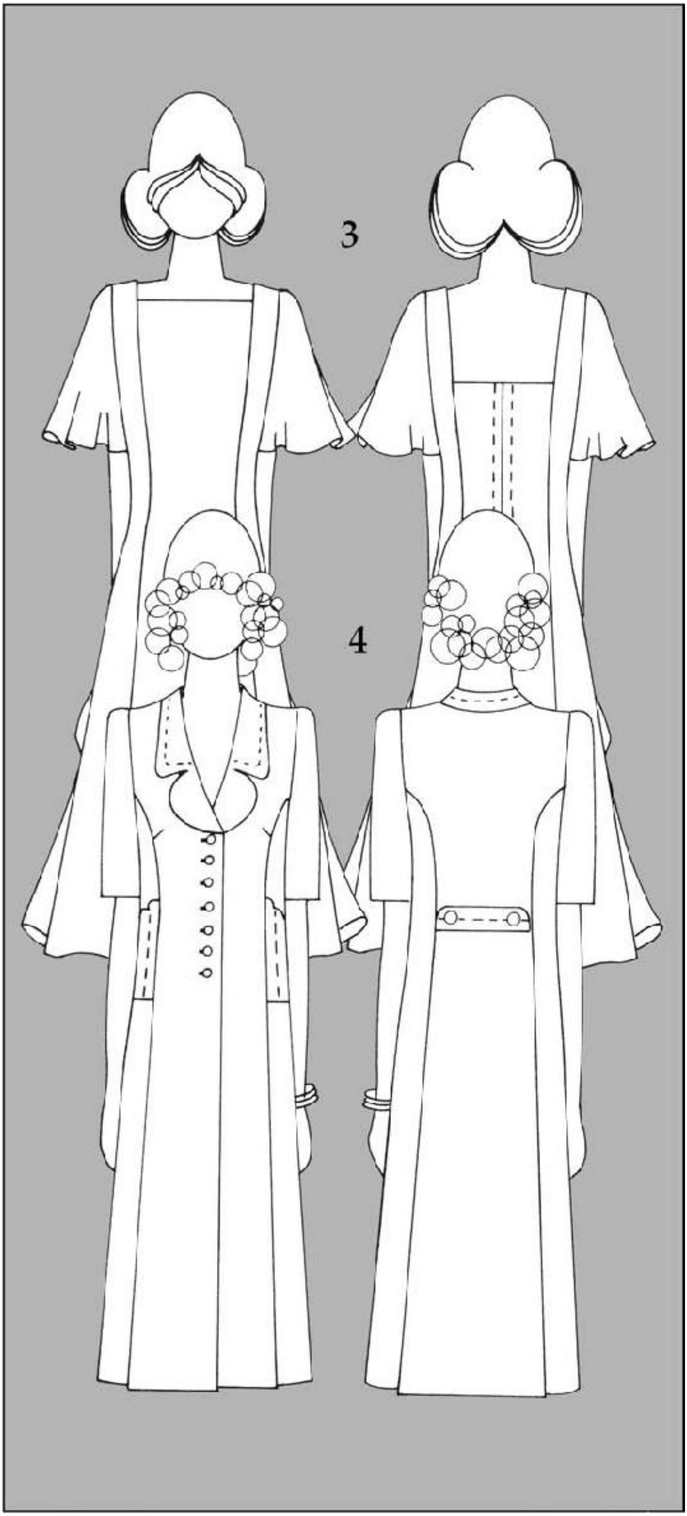
Note The yokes are self faced.

1 Basic shift dress


back
front
CB
back
collar
collar
close
CF fold
front

2 Styled shift dress


back yoke
CB
T
T
4
3
low waistband
CB
CF
fold
front yoke
CF
fold
1
2
back
front
CB
CF
CB fold
back bodice
close darts
front bodice
CF fold
CB fold
back skirt
front skirt
CF fold


3
4

3 Princess line

Trace round one-piece close fitting dress block. Take 2 cm off back shoulder (this includes dart allowance) and 1 cm off front shoulder.

Transfer bust dart to centre shoulder, draw in front and back neckline.

Lower back waist point 3 cm, shape in 1.5 cm. Reduce back dart 1.5 cm.

Drop panel lines from base of front and back waist darts.

Cut out block, cut up side seams.

Front and back Cut up panel lines, trace round panels, shape seams, add 3.5 cm flare to hem of panel seams, 5 cm flare to hem of side seams and 2 cm flare to hem of back seam.

Add extended facings to top of front and back panel seams and to neck edge of side panel seams.

Sleeve Design shows very flared sleeve (ref. 10 page 52).

4 Semi-fitted princess line

Trace round one-piece dress block.

Rub out side seam and waist darts.

Mark balance points at underarm.

Draw in side panels and shape waist 2.5 cm on each panel. Draw in neckline, take a 0.6 cm dart from front neckline. Draw a line from side panel to bust point.

Cut out block and up panel seams.

Front Close bust and neck darts, trace round.

Mark buttonholes, add buttonstand, small rever.

Add 3 cm flare to side panel seam.

Shape panel seam.

Side panel Trace round, add 3 cm flare to panel seams, add a vent pleat (6 cm at top, 9 cm at bottom) to back panel seam.

Add extension 12 cm long, 4 cm wide for pocket. Shape seams.

Back Trace round, add 3 cm flare and pleat to panel seam as for side panel.

Shape seam.

Draw belt shape at top of waistline.

Belt and pocket Trace off belt shape.

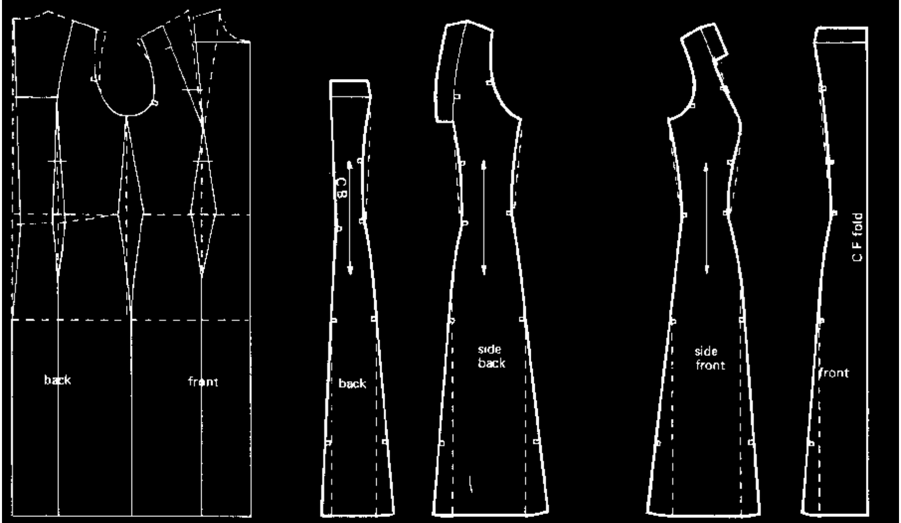
Draw pocket welt 12 cm long and 4 cm wide.

Collar Flat collar (ref. 3 page 70).

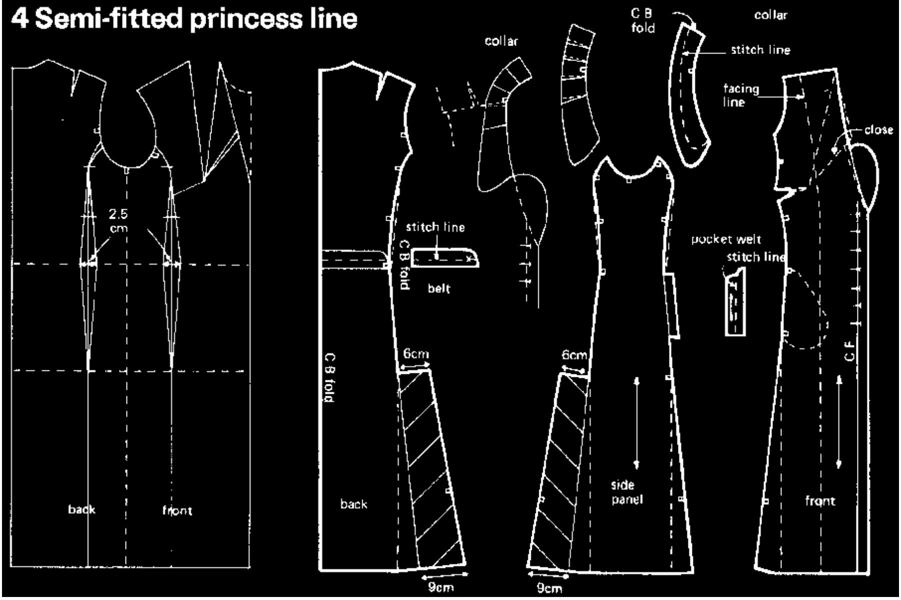
Sleeve Short sleeve (ref. 6 page 50).

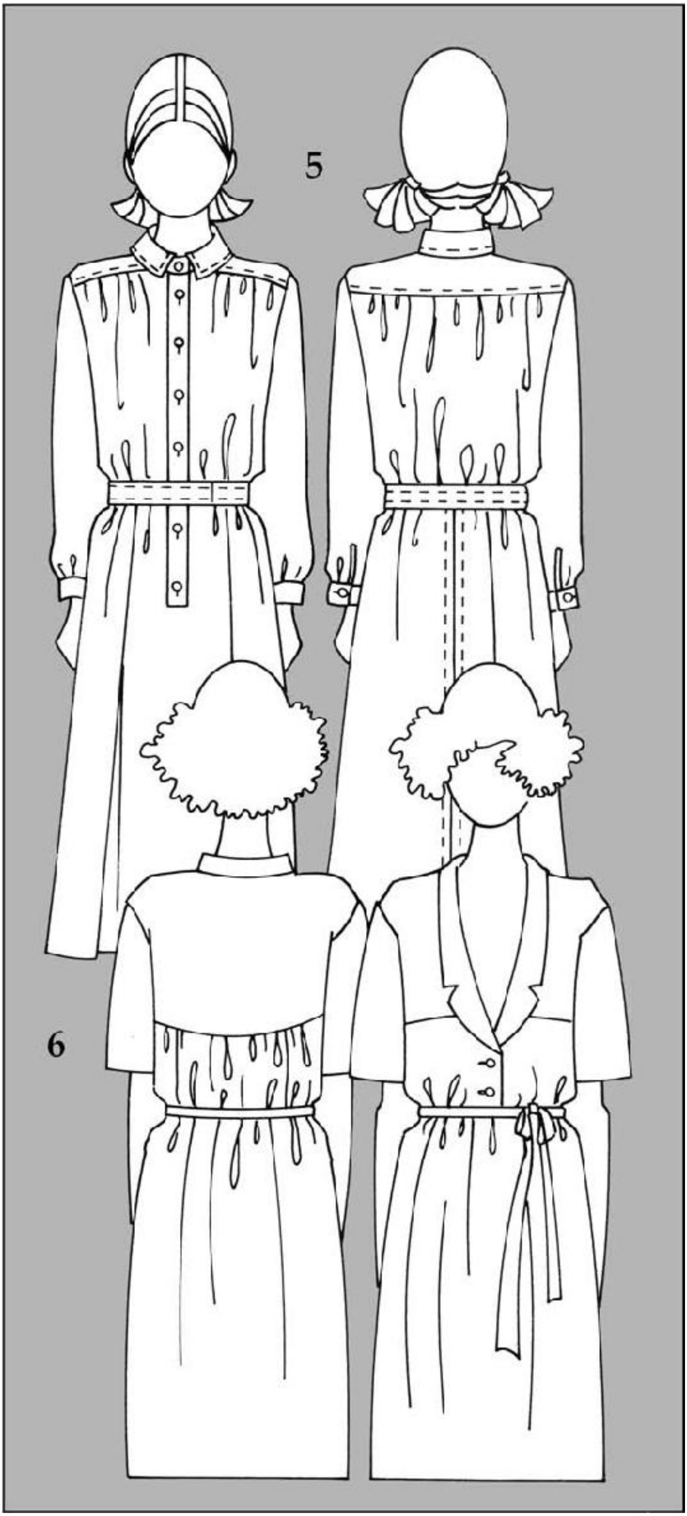
Facing Trace a separate facing.

3 Princess line


back
front
C B
back
side
back
side
front
C F fold
front

4 Semi-fitted princess line


2.5
cm
back
front
stitch line
C B fold
belt
C B fold
back
6cm
9cm
collar
6cm
9cm
C B
fold
collar
stitch line
side
panel
facing
line
close
pocket welt
stitch line
C F
front


5
6

5 Classic shirt dress

Trace easy fitting two-piece dress block (straight side seams on bodice).

Convert 0.5 cm ease on back shoulder into a small dart.

Draw in strap line on front skirt and bodice 2 cm each side of centre line.

Draft shirt armscye (widen bodice 2 cm, lower armscye 1 cm; ref. 24 page 56).

Mark panel line on front skirt.

Yokes Draw back yoke line, slope down 0.5 cm from shoulder dart to armscye edge. Draw front yoke line.

Cut off yokes. Close shoulder darts.

Place front yoke to back yoke at shoulder line.

Trace round pattern.

Back and front bodices Trace bodices.

Cut off front strap. Square down from bust dart; cut up line, open approx. 4 cm.

Add 4 cm to centre back bodice.

Skirt Trace round skirt block.

Construct pleats (ref. 4 page 84).

Add 2.5 cm flare to side seam.

Sleeve Shirt sleeve (ref. 2 page 50).

Collar Shirt collar (ref. 9 page 72).

Front strap and belt Construct front strap, double strap width; join at waist.

Construct belt, half length and twice width required. Mark fold line at centre.

6 Easy fitting dress

Trace easy fitting one-piece dress block and one-piece sleeve to required length.

Bodice sections Complete adaptation for dropped shoulder with lowered armscye (ref. 25 page 56).

Draw in yoke line on back and front.

Back and back yoke Divide back yoke line into three sections, square down from each point.

Trace off back yoke.

Trace off back section, cut up lines and open approx. 4 cm; redraw curve.

Front bodice Trace off front bodice.

Cut along yoke line to base of bust dart; close bust dart.

Mark buttonholes; add buttonstand.

Construct classic roll collar (ref. 12 page 74). Draw in facing line.

Trace off yoke and front bodice.

Collar facing Trace off facing.

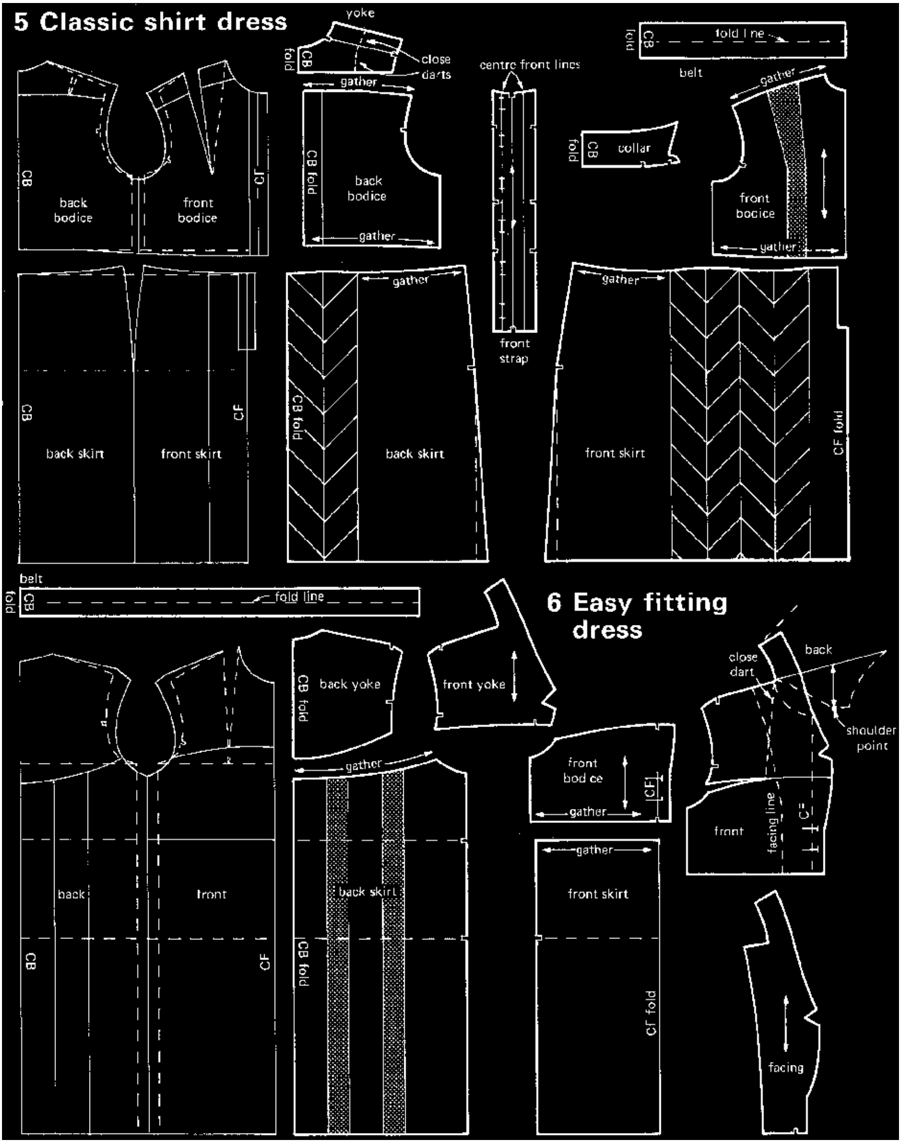
Front skirt Trace off front skirt.

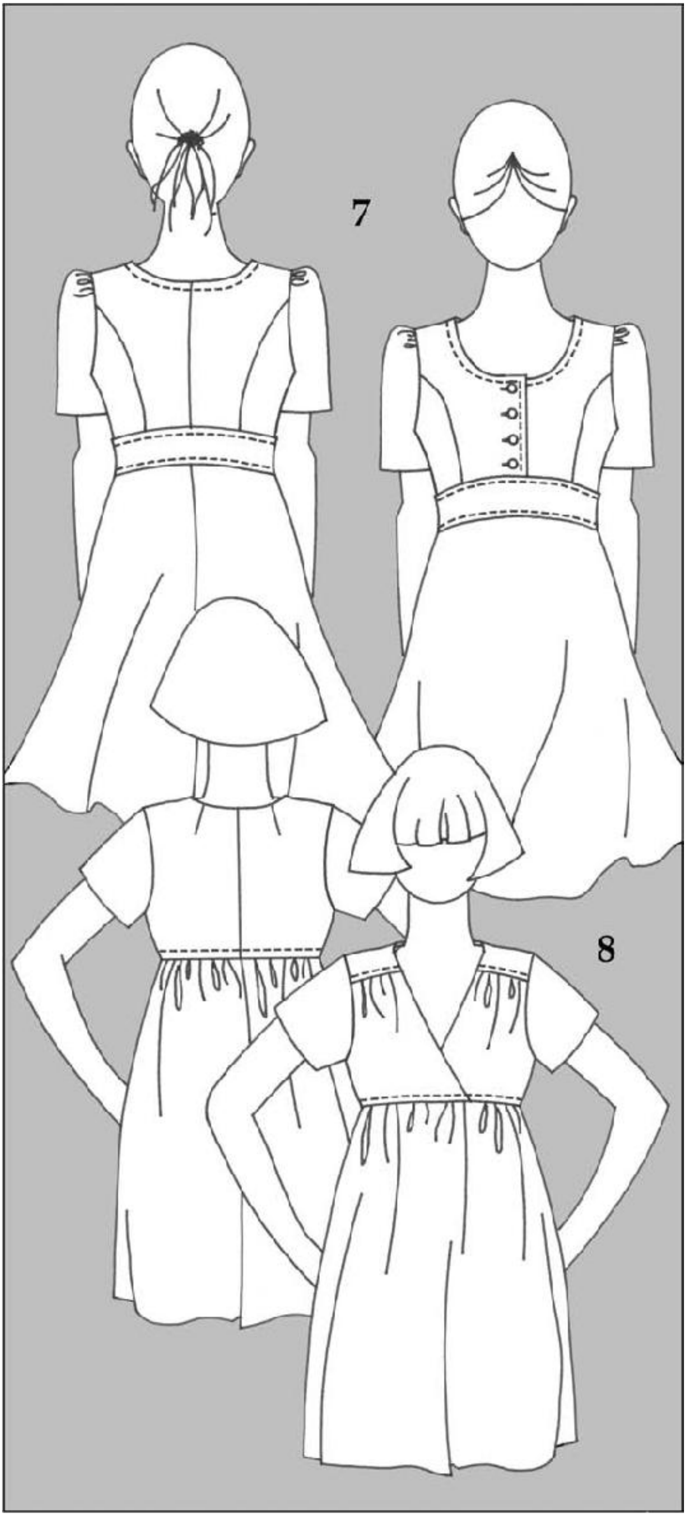
Sleeve Complete adaptation for dropped shoulder with lowered armscye.

Belt Construct belt, half length and twice width required. Mark fold line.

5 Classic shirt dress

6 Easy fitting dress


yoke
fold
CB
close
darts
gather
centre front lines
fold
CB
fold line
belt
gather
collar
CB
fold
back bodice
front bodice
CF
CB fold
back bodice
gather
front bodice
gather
CB
back skirt
front skirt
CF
gather
CB fold
back skirt
front strap
gather
front skirt
CF fold
belt
fold
CB
fold line
back yoke
CB fold
front yoke
back
close dart
shoulder point
gather
back
front
CB
CF
back skirt
CB fold
front bodice
CF
gather
gather
front skirt
CF fold
front
facing line
CF
facing



7

8

7 Dress with high waistband

Trace one-piece dress block to length required.

Draw top band line approx. 6 cm above the natural waistline; curve up 1 cm at centre front. Draw lower band line approx. 2 cm above the natural waistline.

Draw panel lines on bodices to waist darts.

Transfer bust dart to panel line armhole.

Extend back shoulder dart to panel line.

Widen neckline by 2 cm.

Draw in buttonstand; mark buttonholes.

Draw in back and front facings.

Draw vertical lines from waist darts to hem.

Divide the skirt side panels into 2 sections.

Back and front bodices Trace off bodices' facings. Close back shoulder dart.

Trace off waistbands; close darts.

Back and front skirts Trace off skirt sections, cut up section lines. Insert approx. 6 cm flare at hem, closing the waist darts.

Add 4 cm flare to side seam; join hem to waistline with a vertical line.

Sleeve Gathered head (ref. 17 page 54).

8 Empire line dress

Trace one-piece dress block to length required.

Draw in high waistline approx. 6 cm above the natural waistline.

Transfer bust dart to armhole.

Widen neckline by 2 cm: mark point 1 at front shoulder point. Mark point 2, 5 cm from the centre front line. Join 1–2.

Draw a 0.5 cm dart on the neckline.

Re-draw back dart 2 cm towards centre back.

Draw a line from base of new dart to the neckline.

Draw in back facing line.

Back bodice Trace off back bodice and facing.

Transfer shoulder dart to neck line.

Front bodice Trace off front bodice.

Close neckline dart and re-draw 1–2 with a straight line.

Draw in front yoke line and facing line.

Trace off front bodice, yoke and facing.

On front bodice, transfer bust dart to yoke line and mark as gathers.

Back and front skirts Trace off skirt

sections along new high waistline.

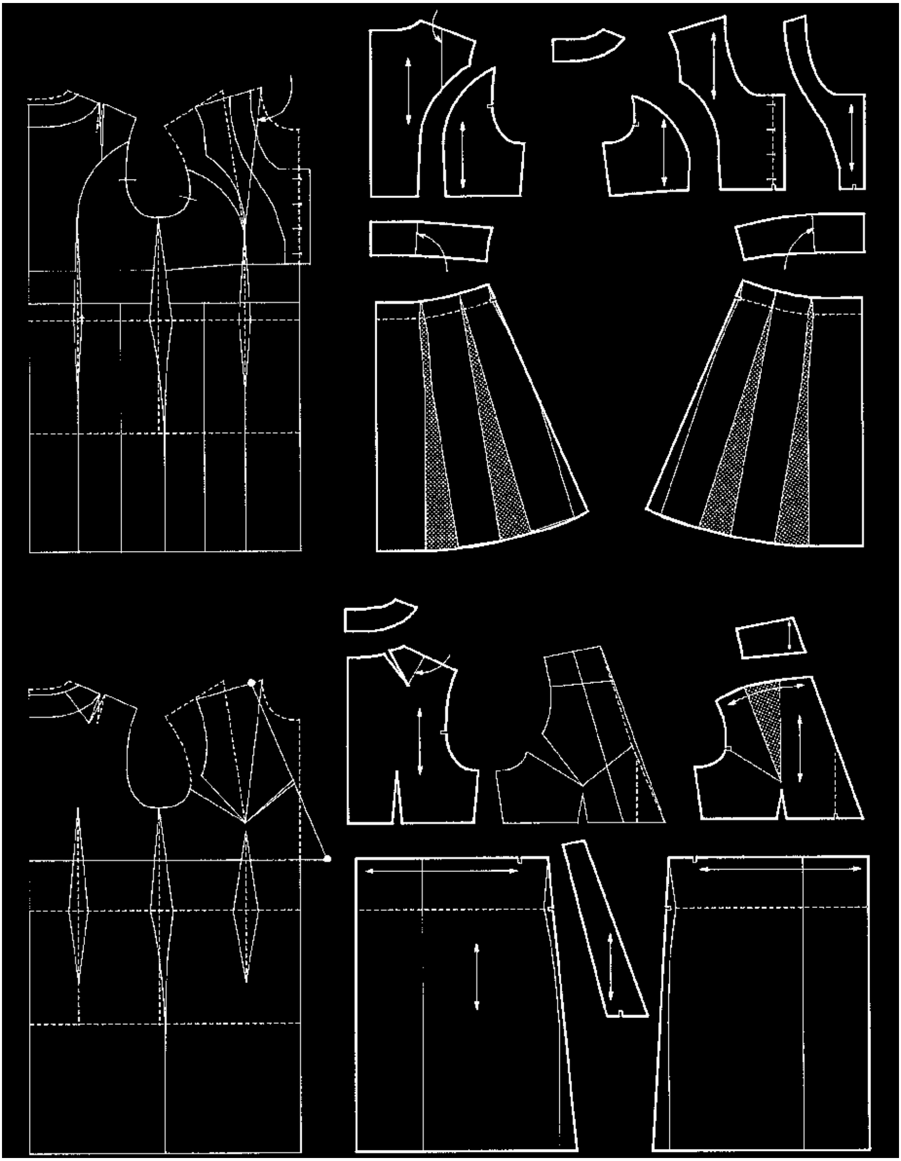
Extend the centre front and back lines 10 cm.

Rub out darts.

Add 5 cm flare to hemline; draw a straight

line from waist to hemline.

Sleeve Short sleeve (ref. 6 page 50).



121

close

7 Dress with high

dart

fold

CB

front

close

waistband

back

facing

dart

CB

facing

CF

back

side

side

front

back

front

back band

front band

fold

CB

CF

fold

back

front

close dart

close dart

CB

CF

CB f

old

back skirt

front skirt

old

CF f

8 Empire line

fold

CB

back

facing

front

dress

close

1

yoke

dart

1

t

gather

CB

se dar

closet

clo

dar

CF

CF

back

front

front

2

2

front

gather

facing

gather

CB

CF

CB

fold

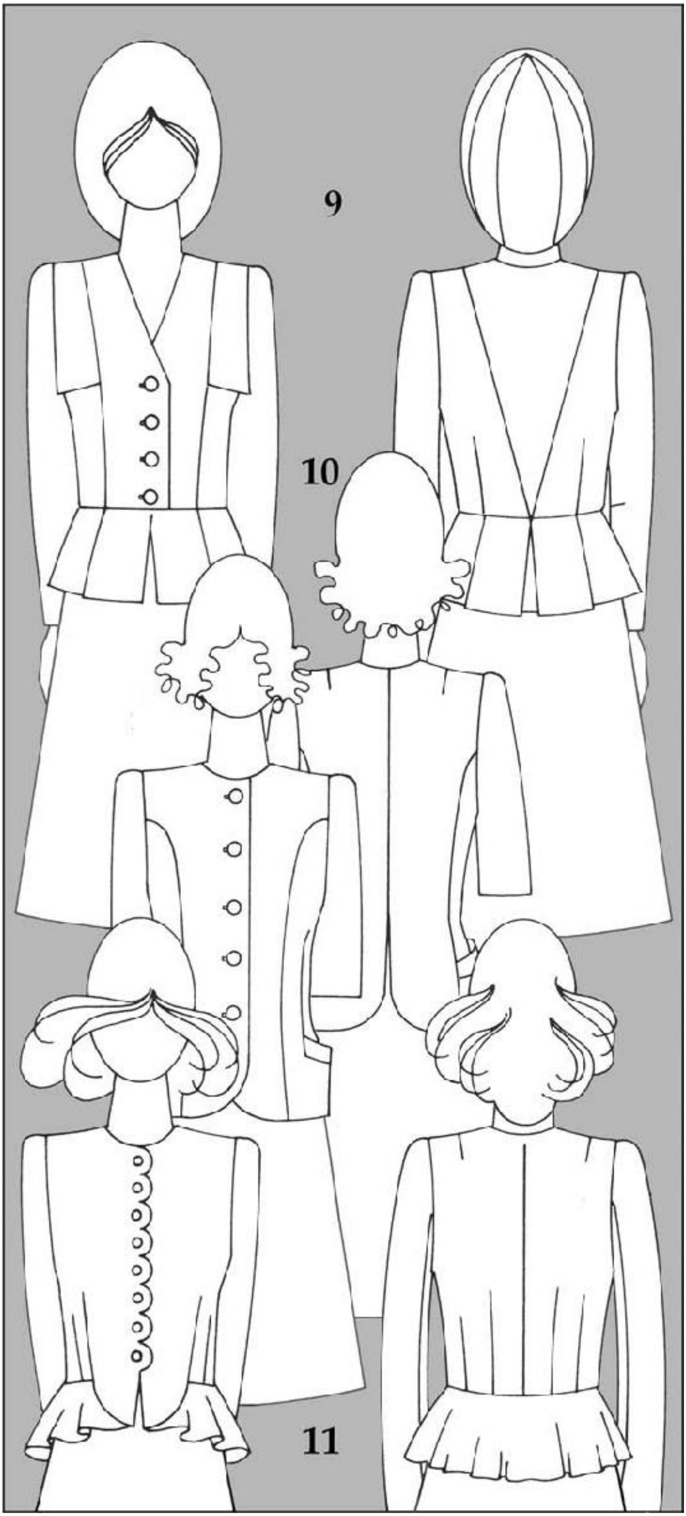
back skirt

front skirt

CF

back

front


9
10
11

For ‘dressmaker’ jackets use a dress block constructed from the close fitting or easy fitting bodice blocks.

9 Jacket – pleated peplum

Trace dress block with waist shaping to length required. Hollow centre back waist 1 cm; drop front waistline 1 cm. Draw in panel seams and collar. Close bust dart. Draw in neckline. Cut along waist seam, panel, side seams.

Trace round sections and collar.

Shape seams; mark buttonholes and buttonstand.

Cut facing as front.

Peplum Cut up centre of side panels; open 2 cm for flare. Add 4 cm vent pleats to panel lines and 8 cm at centre back for inverted pleat. Trace round, fold pleats, cut out. Add extended facing to centre front.

10 Basic fitted jacket

Trace dress block without waist

shaping to length required. Lower back waist 2.5 cm, shape in 1 cm. Draw in panel lines as shown, draw in required waist shaping on these lines and a small dart midway between side seam and front panel.

Draw in pocket and welt from small dart to back panel line.

Trace off pocket welt and bag.

Cut up panels.

Back Trace round, shape seams.

Side panel Trace round, shape seams. Extend side seam at top of pocket the same measurements as width of dart.

Cut along lines 1 and 2.

Front Close bust dart, trace round, shape panel seam, mark buttonholes, add buttonstand. Cut facing as front.

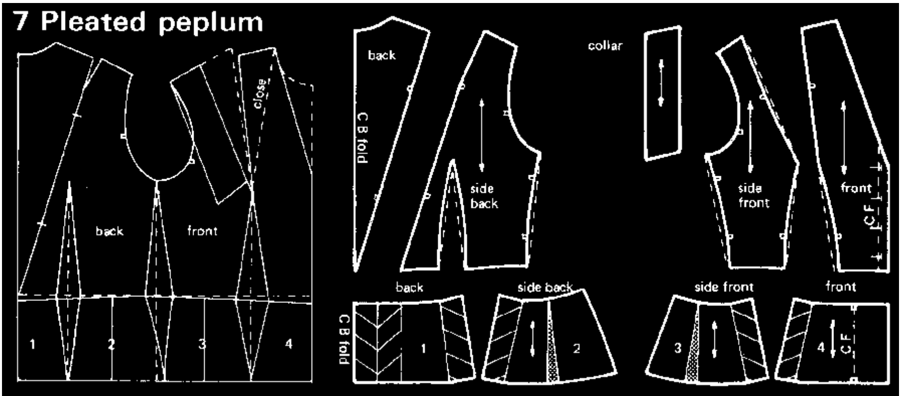
11 Jacket – flared peplum

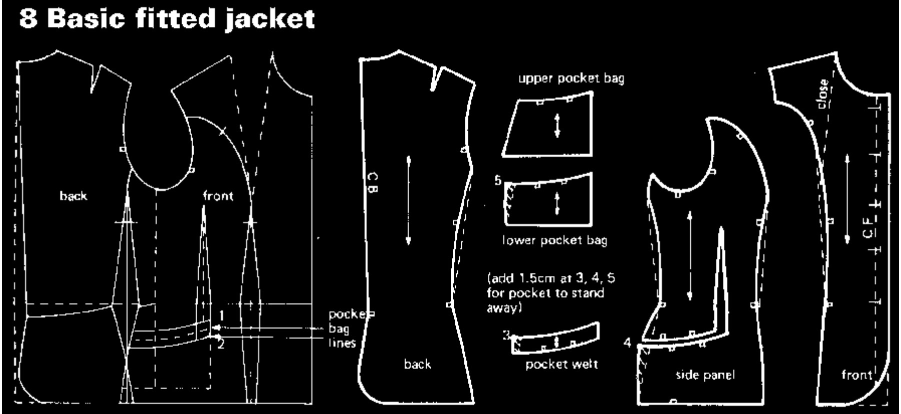
Trace dress block without waist shaping to length required. Draw shaped peplum line. Draw in two darts at back and front as shown. Cut up side seam, and along peplum line.

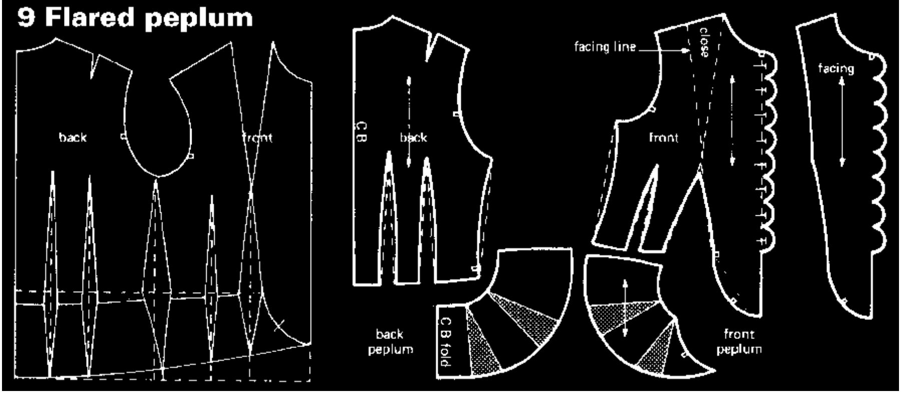
Back Trace round, shape seams, darts.

Front Close bust dart, trace round. Shape seams, shorten darts. Add scalloped buttonstand, mark buttonholes. Trace separate facing.

Peplums Close darts along waistline and open out hem to give required amount of flare. Trace round pattern.


7 Pleated peplum
close
back
front
1
2
3
4
back
C B fold
side back
collar
side front
front
C F
back
side back
side front
front
C B fold
1
2
3
4
C F

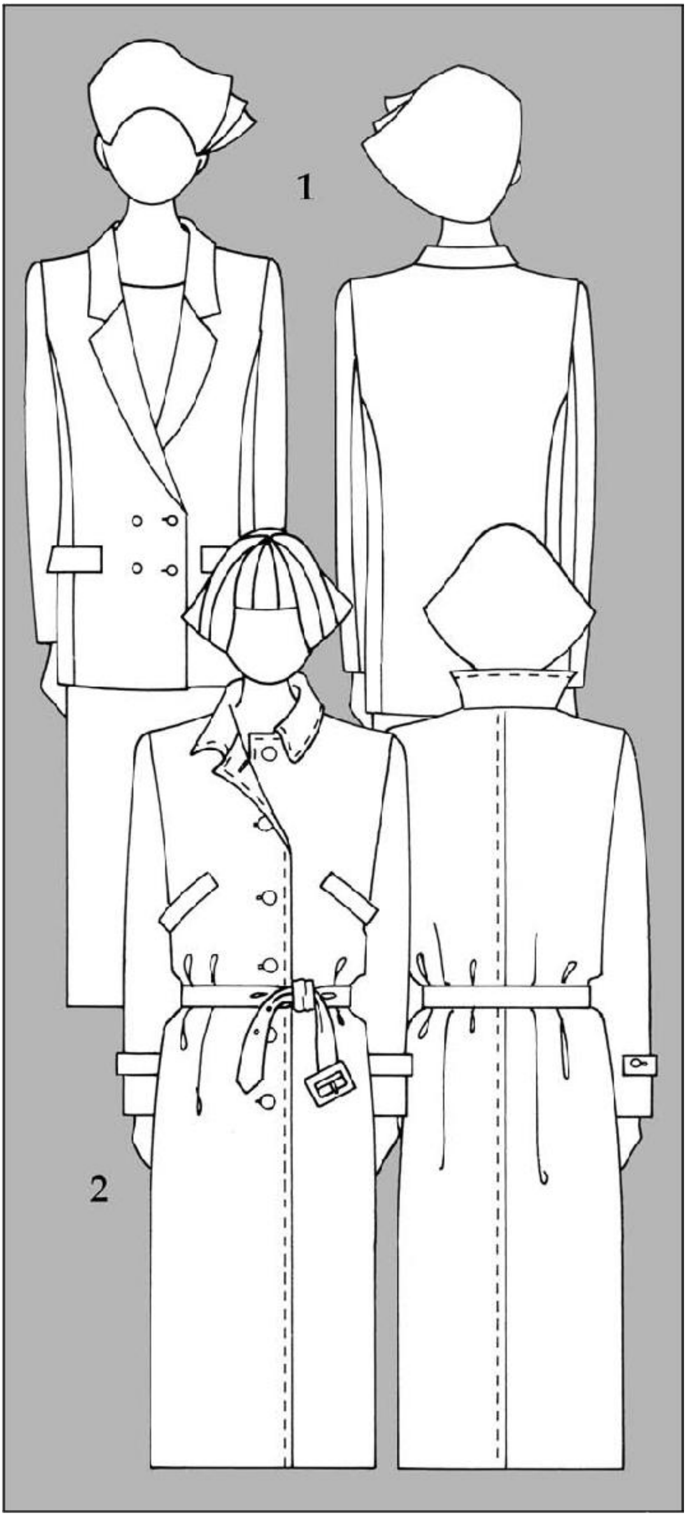

8 Basic fitted jacket
back
front
1
2
pocket bag lines
C B
back
upper pocket bag
5
lower pocket bag
(add 1.5cm at 3, 4, 5 for pocket to stand away)
3
pocket welt
4
side panel
close
C F
front


9 Flared peplum
back
front
C B
back
facing line
close
front
facing
back peplum
C B fold
front peplum

9 Pleated peplum

10 Basic fitted jacket

11 Flared peplum


1
2

Jackets and coats

1 Semi-fitted jacket or coat

Trace jacket or overgarment block depending on fit of garment required.

Draft block with reduced bust dart; transfer dart to centre shoulder.

Body sections Drop vertical lines from back and front pitch points. Mark 1, 2, 3, 4 on back; 5, 6, 7 on front; 8 is midway 1–2; square across to 9.

3–10 and 6–11 1.5 cm.

4–12 and 7–13 2 cm.

Draw back seam lines 9, 3, 12; 9, 10, 4.

Draw front seam lines 5, 6, 13; 5, 11, 7.

Draw in welt pocket.

Mark buttonholes, add buttonstand for double breasted front (ref. 3 page 40).

Lower neckline and draw in required rever shape. Construct standard collar and rever (ref. 19 page 76) on new neckline. Draw in facing line.

Back Trace off back.

Side panel Trace off side panel.

Front Trace front section; transfer 1 cm of bust dart to panel line (use as ease); the remainder to a dart in the neckline.

Collar and facing Trace off collar and facing.

Sleeve Two-piece sleeve (page 26).

Pocket Trace off pocket welt, double the width, mark fold line down centre.

2 Classic overcoat

Trace overgarment block with reduced bust dart (example is half dart size). If extra ease is required in body, draft lowered armscye (ref. 23 page 56).

Back Trace off back section. Add 6 cm for vent at centre back. Add 2 cm flare and pocket facings to side seam.

Front Transfer bust dart to side seam. Draw in welt pocket if required. Lower front hemline 1 cm; join to side seam.

Mark buttonholes, add buttonstand. Draw facing line, add extended facing.

Add 2 cm flare and pocket facings to side seam.

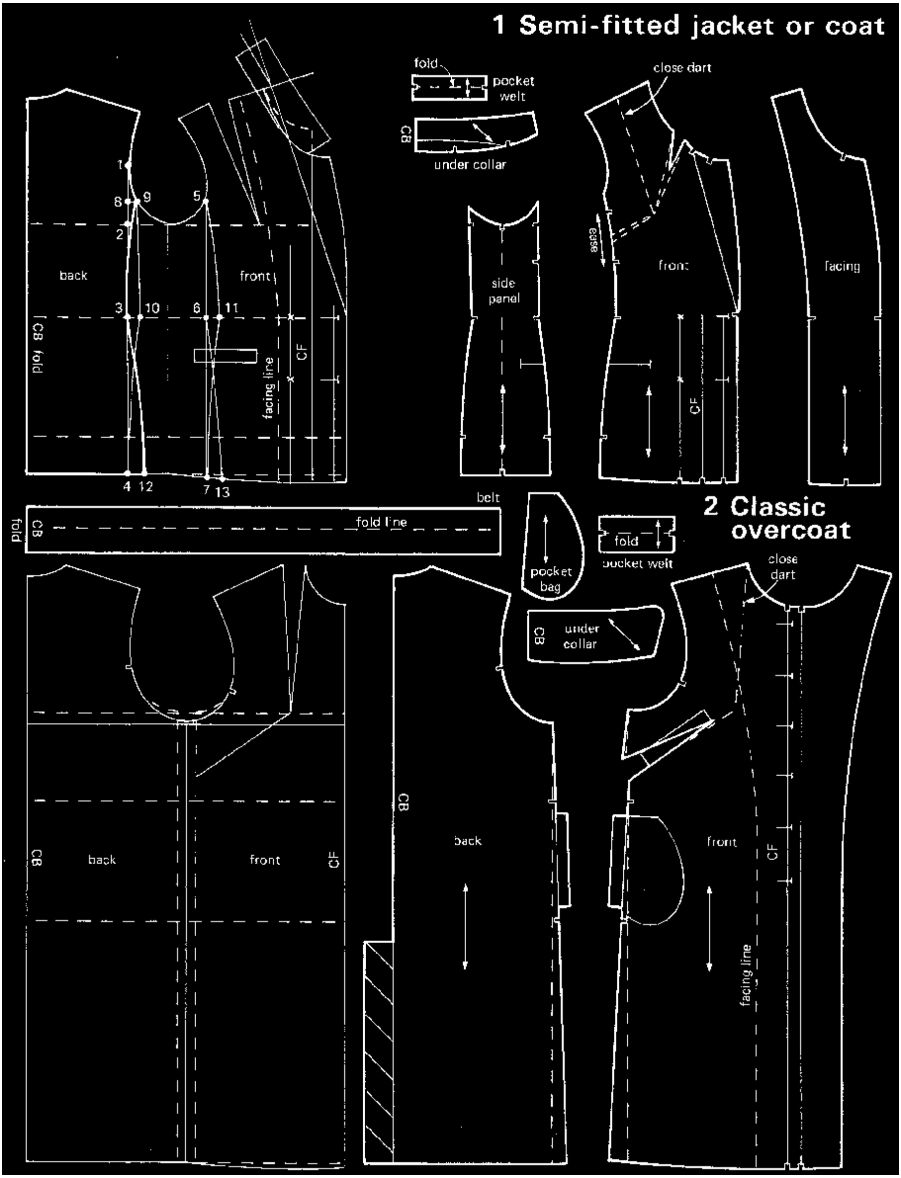
Draw pocket bag, trace off.

Sleeve Trace one-piece sleeve, complete lowered armscye if required.

Collar Construct convertible collar (ref. 8 page 72).

Belt Belt length is half waist measurement plus 25 cm and twice width required. Mark fold at centre.

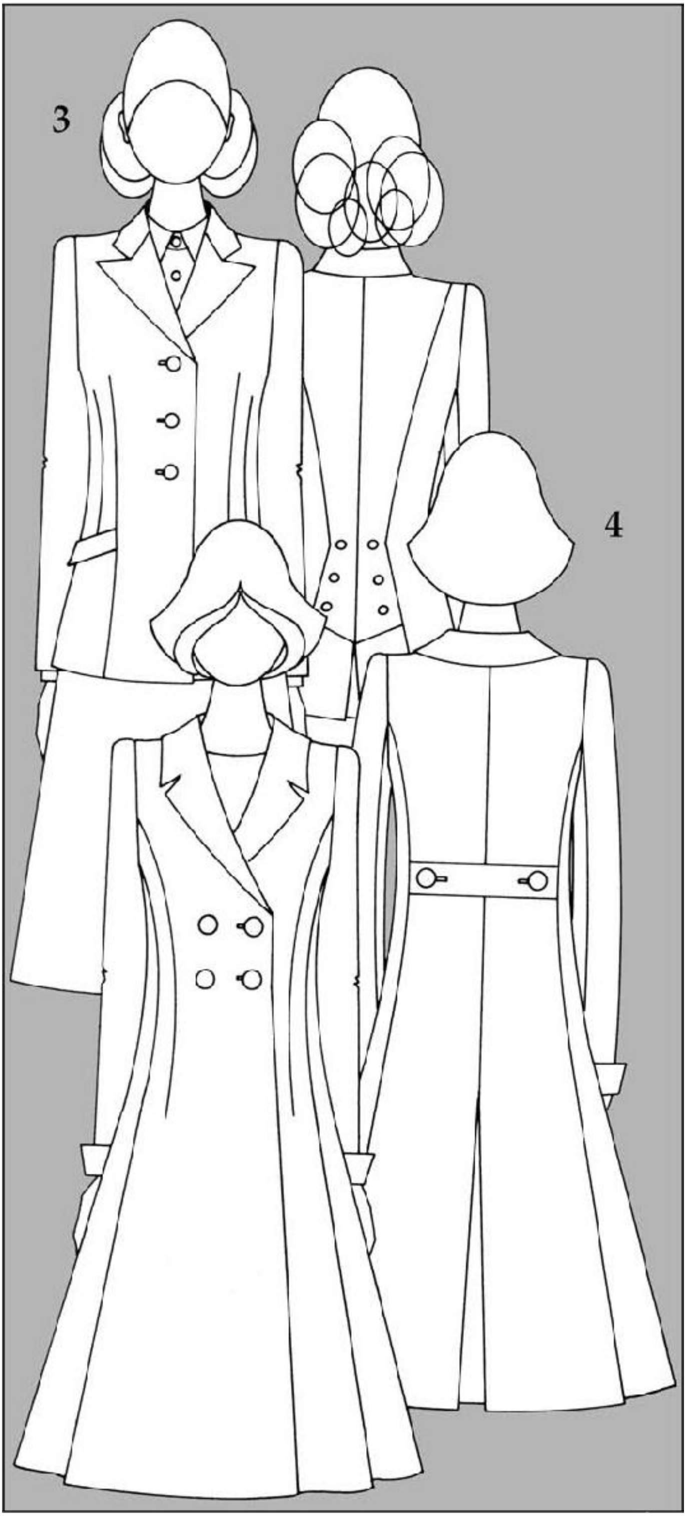
Straps and pocket welt Draft length required and twice width. Mark fold.



1 Semi-fitted jacket or coat

2 Classic overcoat

fold
pocket welt
CB
under collar
close dart
ease
front
facing
1
8
9
2
5
back
front
3
10
6
11
CB fold
facing line
CF
4
12
7
13
side panel
belt
fold
CB
fold line
pocket bag
fold
pocket welt
CB
under collar
close dart
CB
back
front
CF
CB
back
CB
front
CF
facing line


3
4

3 Fitted jacket

Trace off tailored jacket block to length required. Draw in back panel lines, remark side seam 2.5 cm towards back. Shape waist and side seam as shown.

Divide front dart allowance into two darts.

Add 1 cm flare to hem of back panel seam. Draw in pocket.

Mark buttonholes, add buttonstand, construct a standard reefer collar and rever (ref. 18 page 76).

Trace off all sections.

Close bust dart, shape darts and panel seams.

Wheel off a front facing.

Add 12 cm to centre back of lower back panel for an inverted pleat.

Sleeve Draft two-piece sleeve.

4 Fitted coat (slightly high waist)

Trace round overgarment block to the

length required. (The tailored jacket block can be used for a close fit.)

Mark in straight waistline. Extend to required length. Draw in panel seams.

Shape in centre back seam 1 cm at waist and hem. Shape in approx. 3 cm at front waist dart and panel seams.

Draw in belt shape.

For low rever draw in 0.6 cm dart at neckline. Close.

Draw in button lines, mark buttonholes, add buttonstand.

Construct a roll collar with a hollowed neck (ref. 16 page 74), swing back 5 cm. Draw in notch.

Trace off all sections.

Back Add 16 cm to centre back skirt for an inverted pleat. Shape panel seam, add 4 cm flare to hem.

Front and side panel Shape panel seams, add 5 cm flare at hem.

Add 2.5 cm flare at front edge.

Add pocket facing to front seam.

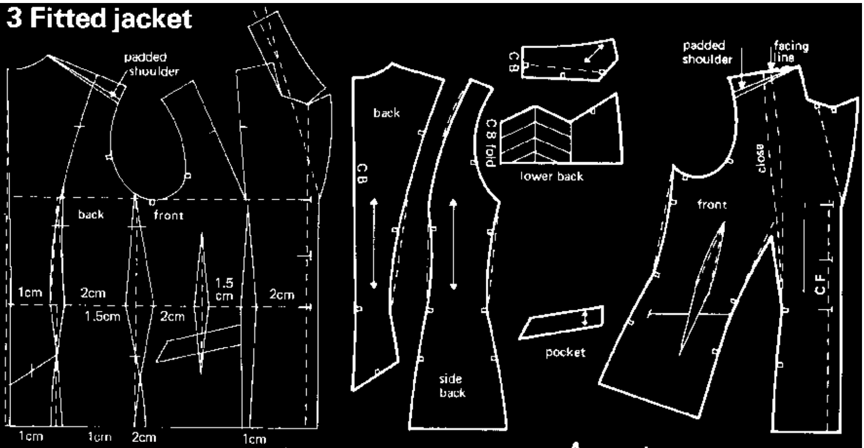
Close bust dart.

Trace off front facing.

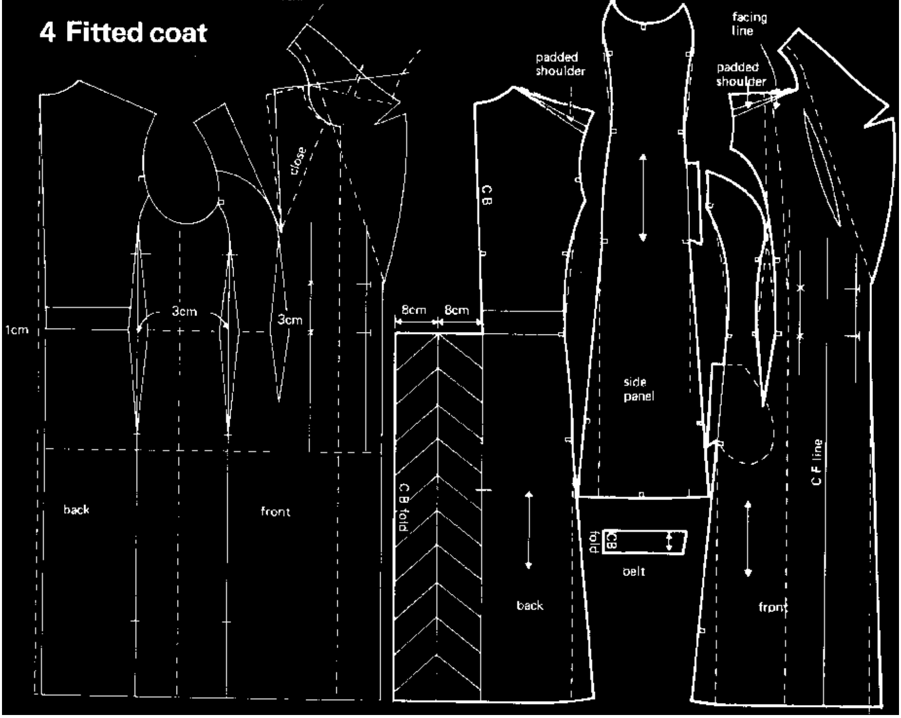
Sleeve Draft two-piece sleeve (page 26). Construct shaped cuff (page 68).

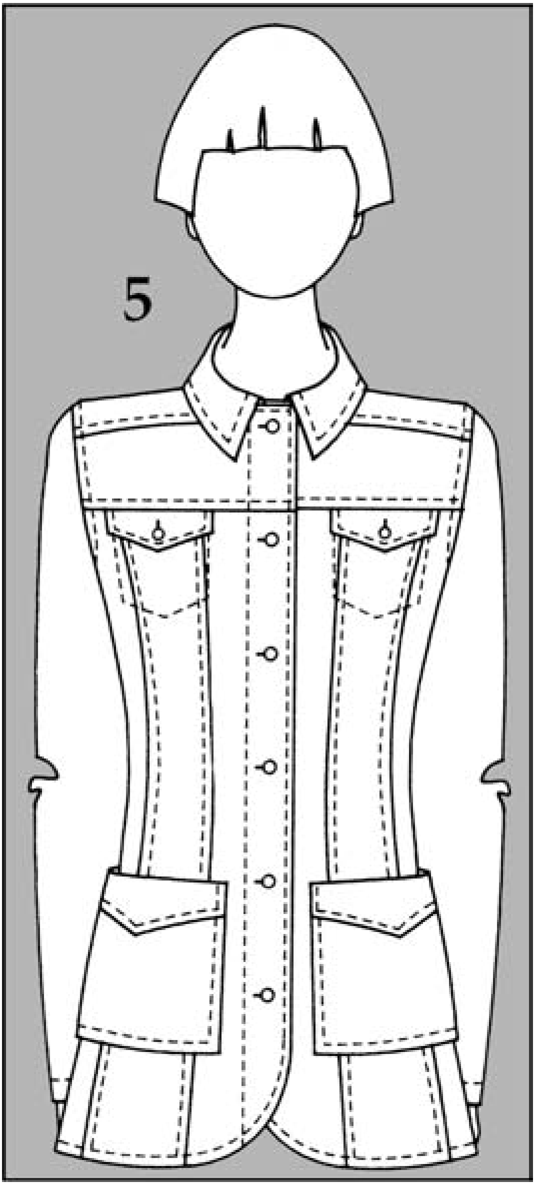
Note For padded shoulders raise shoulders and sleeve heads (ref. 8 page 50).

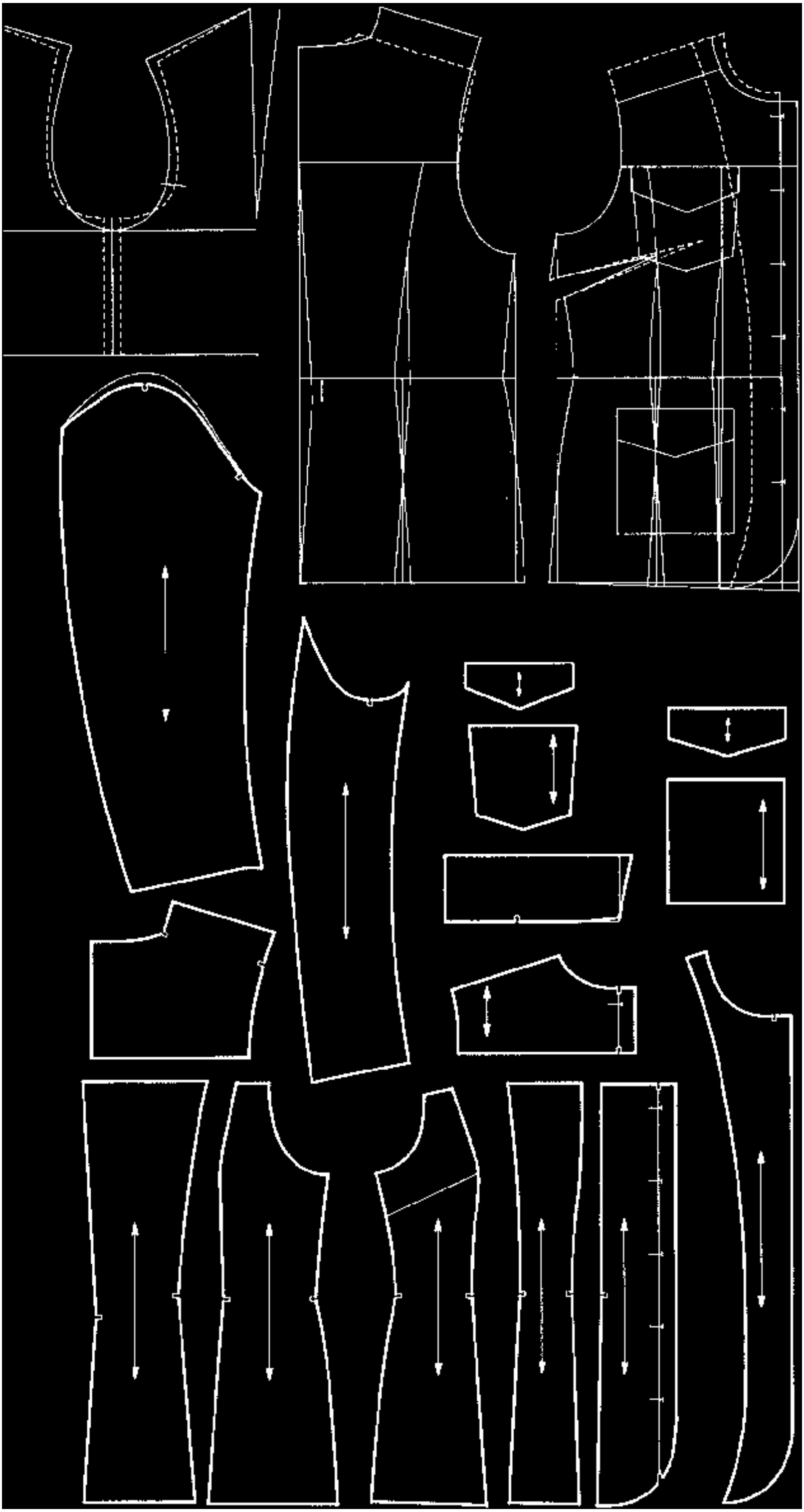
3 Fitted jacket


padded shoulder
back
front
1cm
2cm
1.5cm
2cm
1.5 cm
2cm
1cm
1cm
2cm
1cm
back
C B
side back
C B
C B fold
lower back
pocket
padded shoulder
facing line
close
front
C F

4 Fitted coat


close
3cm
3cm
1cm
back
front
8cm
8cm
C B
C B fold
padded shoulder
side panel
back
C B
fold
belt
facing line
padded shoulder
C F line
front


5



1.25 cm

1.25 cm

CB

CF

2 cm

1.5 cm

back

front

back

facing line

1.5 cm

2 cm

1.5 cm

2

1.5 cm

1.5 cm

cm

2 cm

1.25 cm

pocket facing

pocket flap

front

casual

jacket

sleeve

top

pocket

Trace the easy fitting bodice

block. Use the two-piece sleeve

block (page 26). For an easier fit,

pocket

fold

CB

modify the sleeve and the shirt

collar

armscye adaptation (ref. 24 page

56).

Separate front section. Transfer

CB fold

back

sleeve

dart to underarm.

back yoke

Extend block to length required.

front

Widen neck 1.5 cm, lower front

yoke

CF

neck 1 cm. Take 4 cm off front

facing

shoulder, add to back shoulder.

Redraw armscye. Draw in yoke

and panel lines. Draw in waist

CB

CF

shaping as required or example.

Shorten dart to side panel line.

close

dart

Square down from the centre of

each darting at the waist to

hemline.

Add 1 cm flare to side seams and

to the panels where indicated.

Front Add buttonstand, mark

buttonholes and facing line.

Lower hemline at front 1 cm.

side

mid

Draw in pockets. Trace yoke,

back

side

front

back

front

front

panels and pockets. Close dart on

side front.

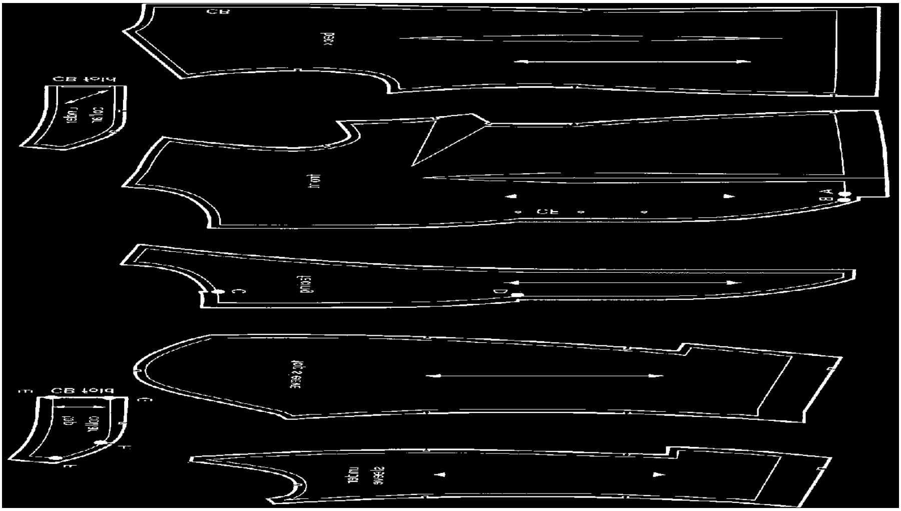
Back Trace yoke and panels.

Collar and facing Trace

off

facing. Construct a convertible

collar (ref. 8 page 72).



Classic coat and jacket hems and seam allowances

Add extra allowance to the outer edge of facing from C–D. (The amount will vary depending on the thickness of the fabric.) Seam allowances will vary with the style and the fabric; the example

Collars The seam allowance for collars will vary with the type of shows seam allowances on a basic jacket pattern.

manufacture or make-up (i.e. shaping of the under collar). Note that the **Back and front** Mark point A at facing line point on the front hemline.

top collar is cut with extra ease (ref. page 70).

A–B = 1 cm.

For standard styles add extra ease (approx. 0.5 cm) to the collar style line Add 1 cm seam to all seam edges.

from E–F and to the neck edge from G–H.

Add 1 cm to the hem from point B to the front edge.

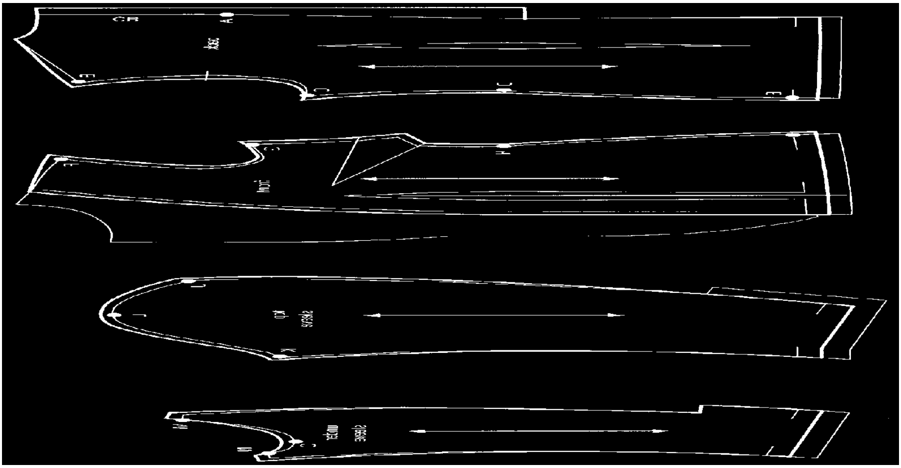
Sleeve Add vents to back seam 10 cm long and 2 cm wide. Add 1 cm Add 4 cm hem allowance. Make a step at point B.

seam allowance to all seam lines. Add 4.5 cm hem allowance.

Facing Mark point C at the collar point and point D at the break line.

Add 1 cm to all seam edges from C–D.

129



130

Classic coat and jacket linings

Body and sleeve linings are cut 2 cm above cloth hemlines.

Back Add 2 cm at A for the centre back pleat. Add 1 cm out and up at Ease allowance is required in linings for two reasons: B; 1 cm out and 0.5 cm up at C; 0.5 cm out at D and E.

(1) Cloth garments, particularly those made in woollen fabrics, ‘spread’

Front Add 1 cm out and up at F; 1 cm out and 0.5 cm up at G; 0.5 cm a little when they are cut out. Lining fabrics do not relax in the out at H and I. Add 1 cm to the facing line for seam allowance.

same manner. The amount of ease required is dependent on the **Top sleeve** Add 1 cm up and 0.8 cm out at J and K; 1 cm up at L.

fabric used; the example shown is a general guide.

Under sleeve Add 1 cm up and 0.8 cm out at M and N; 1 cm up at 0.

(2) The linings should be loose enough to prevent the garment being Reshape underarm curve as shown. Add vent allowance to undersleeve.

distorted when the lining is inserted. The ease in the lining also **Note** In the bespoke trade, linings are often cut by laying the cloth allows for parts of the garment that come under stress from body pieces directly onto the lining fabric; in manufacture, separate lining movement. Particular stress points are the armscye and the centre patterns have to be made.

back.

The lining patterns are made after seam allowance has been added to the garment piece patterns.

PART TWO: FLAT CUTTING

9 Easy fitting garments (woven fabrics)

These adaptations are all based on *flat cutting* without using dart shaping or close fitting waist shaping. The technique is useful for flat-packed garments. The basic *flat* blocks are used mainly for garments of easy fitting shape in woven fabrics and therefore have a substantial amount of ease included. They are the base for most sportswear and weatherwear garments, but they can also be used as a means to create innovative shapes.

Sleeve and collar adaptations from Part one: Form cutting can be used . Some style examples are shown to demonstrate their application. Most examples show the back and front sections facing the same way. This is used so that grading points and instructions for both patterns will be the same. *Flat cutting* enables the use of these simple grading techniques.

Easy fitting trouser and skirt shapes

132

The easy fitting trouser block

132

Ease in the back crutch

132

The simple trouser block

134

The simple and very simple skirt blocks

134

1 ‘Baggy’

trousers

136

2 One-piece

trousers

136

3 Asymmetric panelled skirt

138

4 Basic yoked skirts with panels

138

Easy fitting body shapes

140

The basic shirt block

140

The basic ‘flat’ overgarment blocks

142

The ‘flat’ kimono block

142

1 Jacket – inset sleeve

144

2 Trench coat – inset sleeve

144

3 Swing jacket/coat – kimono sleeve

146

4 Weatherwear – kimono sleeve

146

Sizing

Sportswear and some casual wear manufacturers usually use sizing breaks of XSMALL, SMALL, MEDIUM, LARGE and XLARGE. The example sizings used in the following drafts are based on size MEDIUM, High-street fashion garments (see page 12).

Easy fitting trouser and skirt shapes

The easy fitting trouser block (for 'baggy' trousers and dungarees)

Measurements required to draft the block

3–14 half trouser bottom width minus 0.5 cm.

4–15 the measurement 4–13.

The block can be drafted to size codes 8, 10, 12, etc, Draw inside leg seam, join 14–15; join 9–15 curving or to XSMALL, SMALL, MEDIUM, LARGE,

the line inwards 0.75 cm.

XLARGE from any of the size charts in this book

(pages 12–14). Personal measurements (see page 178)

Back

can also be applied to the block.

5–16 quarter the measurement 1–5; square up to 17

A size MEDIUM from the size chart on page 12 (for

on the hipline, 18 on the waistline.

fashion garments) is used for this illustrated

16–19 half the measurement 16–18.

example.

18–20 2

cm.

waist

68 cm

body rise

28 cm

20–21 2

cm.

hips 94

cm

waist

to

floor

104 cm

21–22 quarter waist plus 6 cm; join 21–22 to touch waist to hip

20.6 cm

trouser bottom

the horizontal line from 0.

width (page 13)

22 cm

9–23 half the measurement 5–9.

23–24 0.25

cm.

Join 21–19; join 19–24 with a curve touching a point: **Front**

sizes 6–14 or XSml, Sml, Med 4.5 cm

from 16

Square both ways from 0.

sizes 16–26 or Lge, XLge

4.75 cm from 16

0–1 body rise plus 1 cm; square across.

17–25 quarter hip measurement plus 2 cm.

0–2 waist to hip; square across.

12–26 1

cm.

0–3 waist to floor measurement; square across.

13–27 1

cm.

1–4 half the measurement 1–3 minus 5 cm; square Draw in side seam; 22–25 curve outwards slightly, across.

25–27 curve inwards slightly, join 27–26.

1–5 one twelfth hip measurement plus 1.8 cm;

14–28 1

cm.

square up to 6 and 7.

15–29 1

cm.

6–8 quarter hip measurement plus 1 cm.

Draw inside leg seam; join 28–29; join 29–24 curving

5–9 one sixteenth hip measurement plus 1 cm.

the line inwards 1 cm.

7–10 1

cm.

Join 10–6 and 6–9 with a curve touching a point:

Ease in the back crutch

sizes 6–14 or XSml, Sml, Med 3.5 cm

from 5

sizes 16–26 or Lge, XLge

3.75 cm from 5

Most easy fitting trousers, particularly dungarees,

10–11 quarter waist plus 5 cm.

require extra ease in the back crutch line.

3–12 half trouser bottom width minus 0.5 cm; join Trace off back trousers of required block.

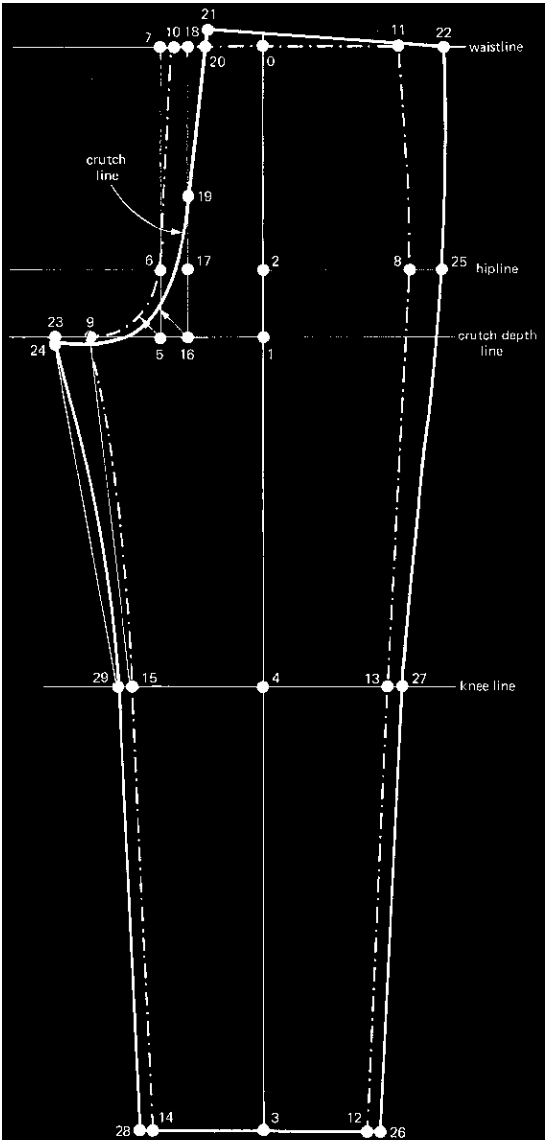
8–12. Mark point 13 on knee line.

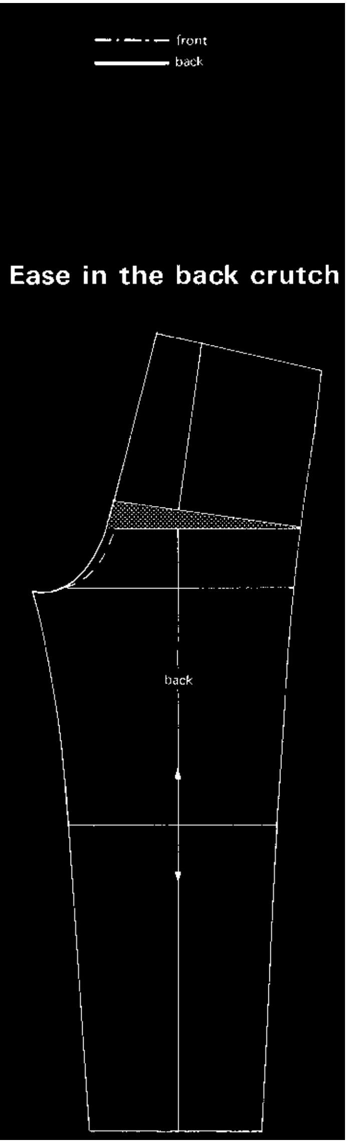
Cut along the hipline and open a wedge approx.

Draw in side seam; join 8–11 with a slight curve. Join 3.5 cm wide at back crutch line.

8–13 and 13–12.

Redraw back crutch line as shown.


21
7
10
18
11
22
waistline
20
0
crutch line
19
6
17
2
8
25
hipline
23
9
24
5
16
1
crutch depth line
29
15
4
13
27
knee line
14
3
12
28
26


front
back
back

Ease in the back crutch

133

134

The simple trouser block

Measurements required to draft the blocks

2–9 half high ankle measurement plus 6 cm.

3–10 three quarters the measurement 1–4 plus

The blocks can be drafted to size codes 8, 10, 12, etc, 0.3 cm.

or to XSMALL, SMALL, MEDIUM, LARGE,

Draw inside leg seam; join 9–10 with a straight line, XLARGE from any of the size charts in this book join 8–10 curving the line inwards 1 cm.

(pages 12–14). Personal measurements (see page 178)

can also be applied to the blocks.

Back

A size MEDIUM from the size chart on page 12 (for

5–11 3.5

cm.

fashion garments) is used for these illustrated

11–12 3.5

cm;

join

12–0.

examples.

4–13 half the measurement 4–5.

waist

68 cm

body rise

28 cm

8–14 the measurement 4–8 plus 0.5 cm.

low waist

80 cm

waist to floor

104 cm

14–15 1

cm.

hips

94 cm

high ankle

21 cm

Join 12–13 and 13–15 with a curve touching a point:

sizes:

6–14 or XSml, Sml, Med

5 cm from 4

Front

16–26 or Lge, XLge

5.5 cm from 4

Square down and across from 0.

9–16 2

cm.

0–1 body rise plus 1 cm; square across.

10–17 3

cm.

0–2 waist to floor; square across.

Draw inside leg seam; join 16–17 with a straight line, **1–3** half the measurement 1–2; square across.

join 15–17 curving the line inwards 2 cm.

1–4 quarter hip measurement plus 4 cm; square up to 5.

Creating a one-piece pattern

5–6 1

cm.

Trace round back section (heavy line).

4–7 quarter the measurement 4–5.

Trace round front section (dotted line).

4–8 quarter the measurement 1–4 minus 0.5 cm.

Mirror the front and place the side seams together.

Join 6–7 and 7–8 with a curve touching a point:

sizes:

6–14 or XSml, Sml, Med

2.75 cm from 4

16–26 or Lge, XLge

3 cm from 4

The simple and very simple skirt blocks

The simple skirt block

The very simple low-waist skirt block

The block can be used for easy fitting skirts with

The block is useful for skirts that are cut on the cross elasticated waistbands.

or in stretch fabrics. The ease in the waistline can be eased into bound waistlines, or shaped or darted **Front** into faced waistlines. It can be also be used for a

Square down from 0.

wide variety of skirts with yokes.

0–1 skirt length required; square out.

For this simple block, the diagram instructions are

0–2 waist to hip measurement; square out.

used for both the back and front skirts.

2–3 quarter hip measurement plus 0.5 cm. Square down to 4.

Front and back skirts

0–5 quarter waist measurement plus 4 cm; square Square down from 0.

up 1.25 cm to 6. Join 0–6 with a curve.

0–1 skirt length required; square out.

Join 6–3. Curve the hipline out 0.25 cm.

0–2 waist to hip measurement minus 6 cm; square out.

Back

2–3 quarter hip measurement plus 1.5 cm. Square **3–7** 2 cm; square down to 8.

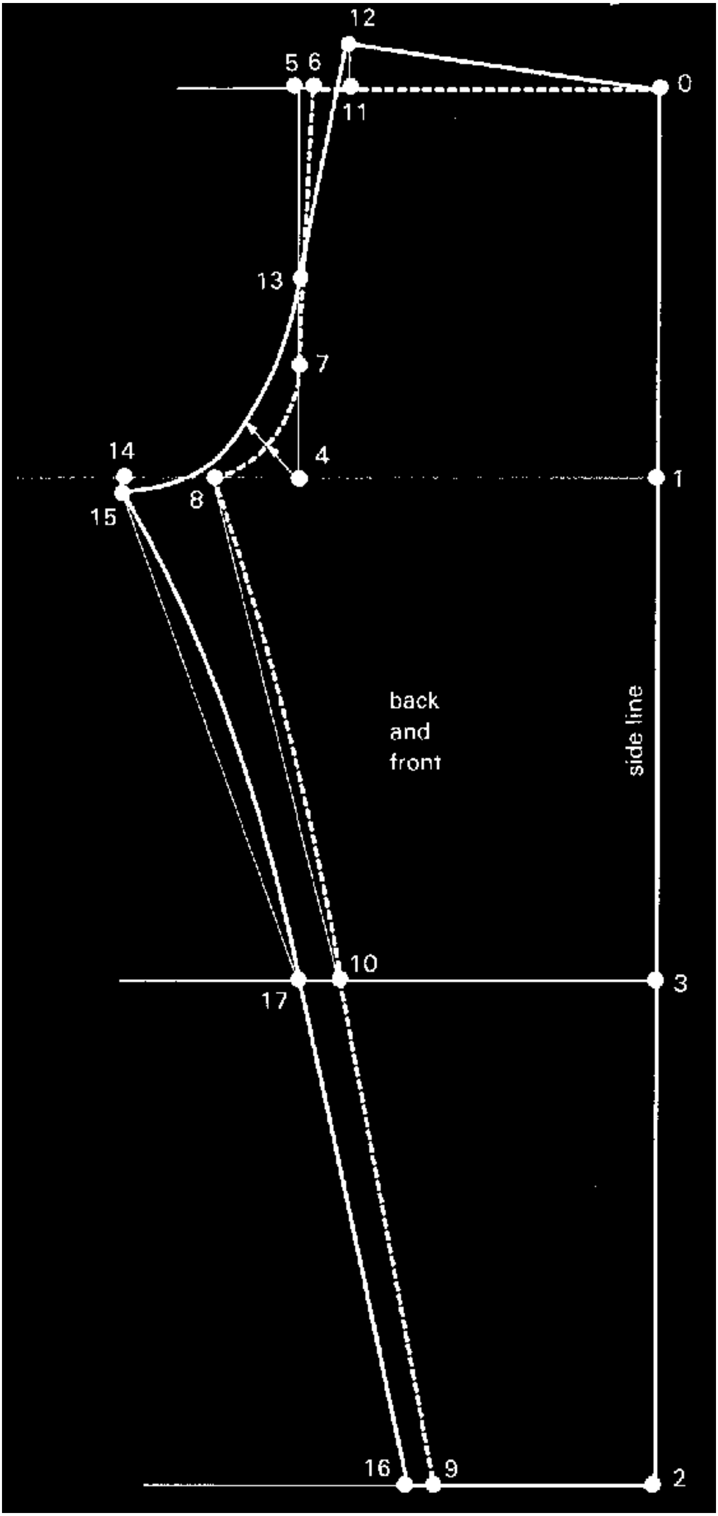
down to 4.

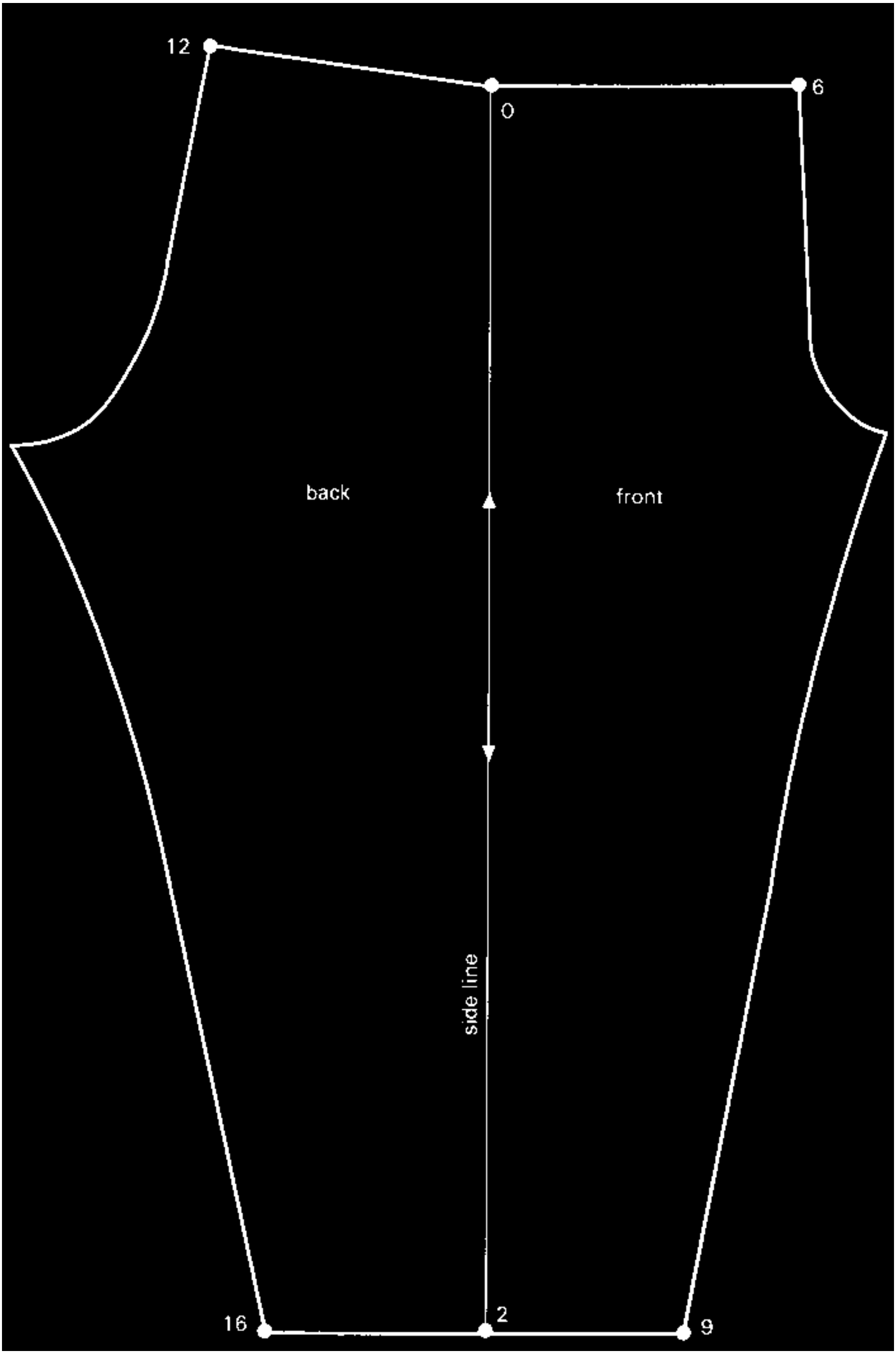
0–9 quarter waist measurement plus 6.5 cm; square **0–5** quarter low waist measurement plus 1.5 cm; up 1.25 cm to 10. Join 0–10 with a curve.

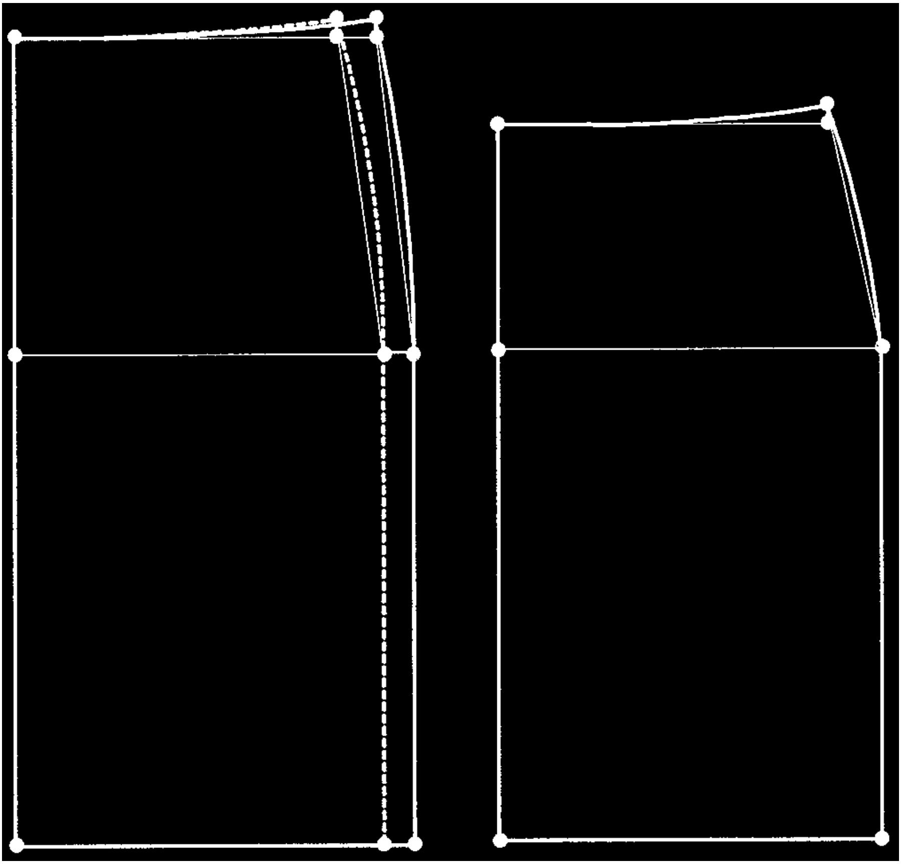
square up 1.25 cm to 6. Join 0–6 with a curve.

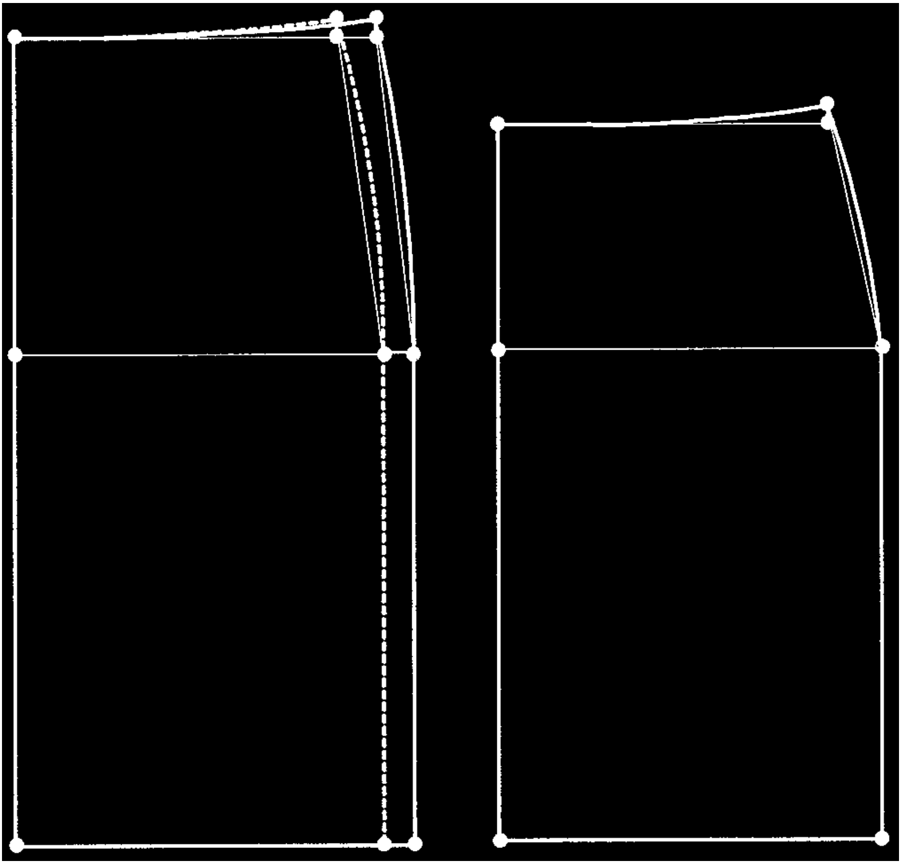
Join 10–7. Curve the hipline out 0.25 cm.

Join 6–3. Curve the hipline out 0.2 cm.


back
and
front
side line


back
front
side line





12

12

6

5 6

0

0

11

13

back

front

7

14

4

1

8

15

side line

back

and

front

side line

16

2

9

6 10

0

The very simple

10

9

3

5

skirt block

17

6

0

5

2

7

2

3

3

CB and CF

CB and CF

back

back

and

and

16

9

2

front

front

The simple

skirt block

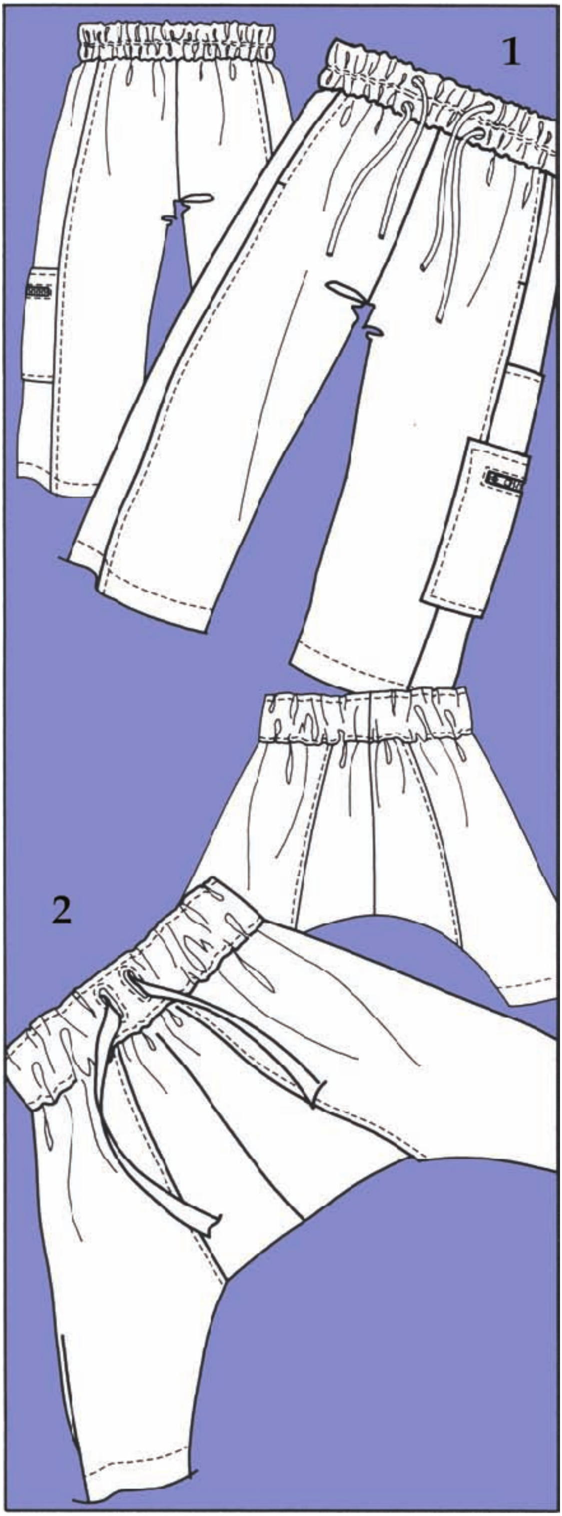
4

4

1

1

8


1
2

1 'Baggy' trousers

Trace off the back and front of the easy fitting trouser block.

Shorten to the required length.

If very baggy trousers are required, cut up the centre lines and open required amount.

Front Draw in side panel line.

Mark points 0–1 on the inside leg seam.

Extend the line from 1.

0–2 is one third distance 0–1; square down to 3.

4–5 = 1–3; square up to 6.

Draw in the pocket bag from the side panel line.

Draw in the front pocket.

Draw in the side pocket; mark points 7 and 8.

Trace off front and side front.

Back 9–10 and 11–12 are the measurement 1–3; square up to the inside leg seam and side seam.

Draw in the side panel line, width is the measurement 7–8 on the side pocket. Mark side pocket.

pocket.

Trace off back and side back.

Pockets Trace off pocket bag, front pocket and side pocket.

Waistband construct a waistband: measurement of the waistline of the patterns created and twice the width required. Mark fold line down centre.

2 One-piece

trousers

Trace off the very easy fitting trouser block.

Back and front Shorten to the required length.

Square down from 0 at the centre front to 1.

Square across to 2. Square up to 3, 3 cm above

waistline.

Extend the back waistline to 3.

Gusset Draw a vertical line, length 110 cm.

Mark point 4 at the centre; square out.

4–5 approx.

24

cm.

Draw a line 8 cm long, parallel to the top of the

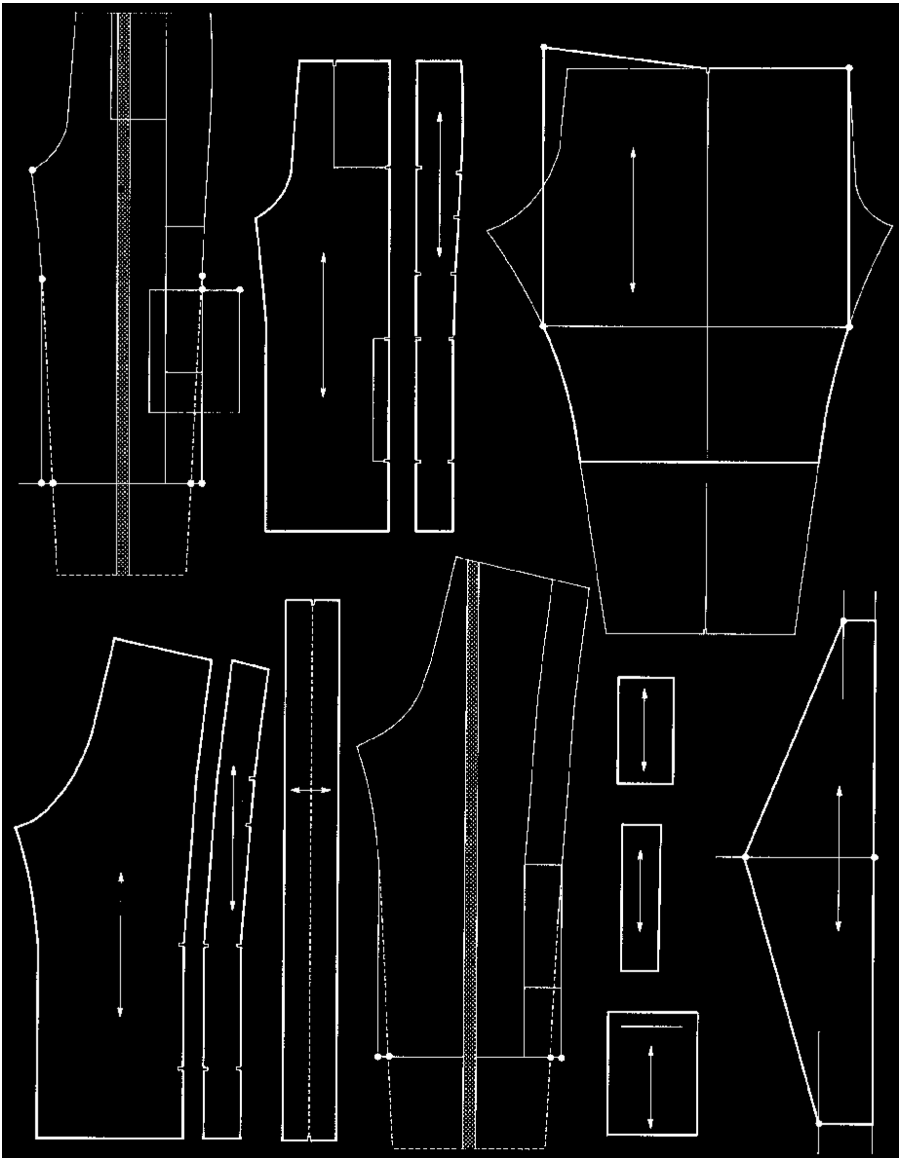
vertical line.

Draw a line 12 cm long, parallel to the bottom of the vertical line.

5–6 is the measurement 0–1; square across.

5–7 is the measurement 2–3; square across.

Waistband Construct a waistband as above.



137

1 Baggy Trousers

CF

3

2 One-piece trousers

0

side

CF

front

0

front

6

2

8

7

2

1

back and front

front

3

5

1

4

CB

6

pocket

bag

CB

fold line

front

gusset

back

front

pocket

waistband

8

7

5

4

fold line

back

gusset

side

pocket

side

side

back

9

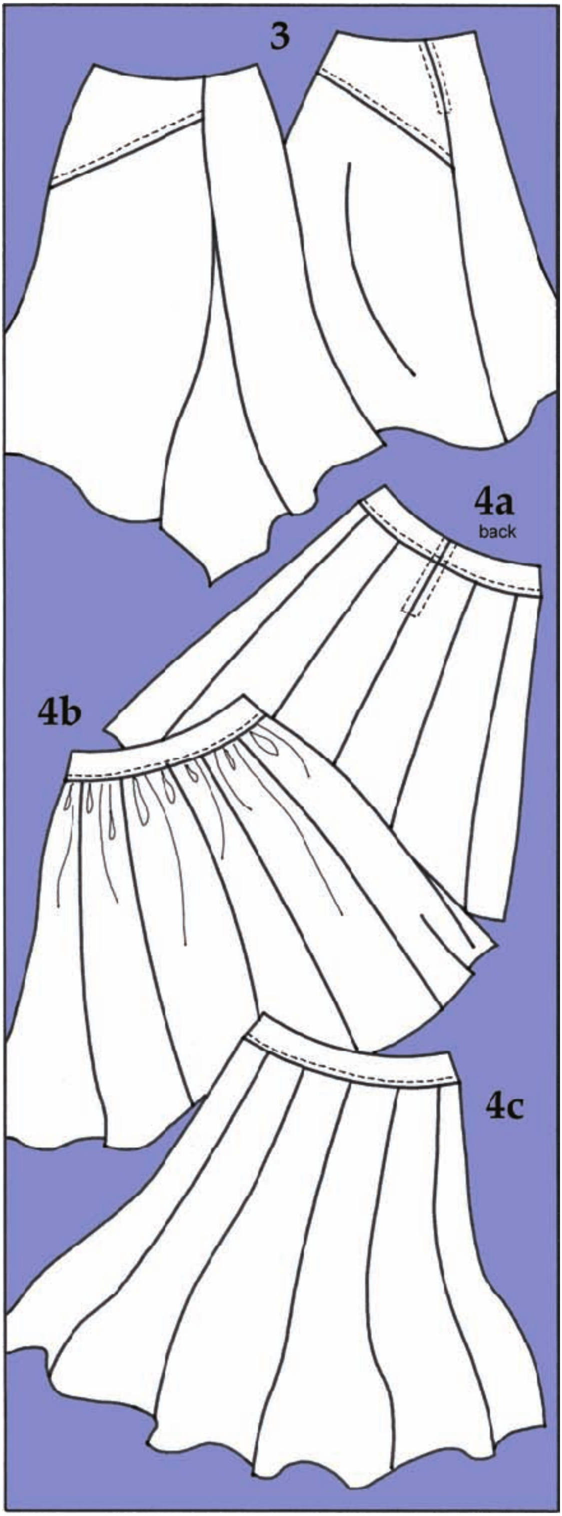
11

back

10

12

7


3
4a
back
4b
4c

3 Asymmetric panelled skirt

Trace the very simple skirt block. The pattern is based on cutting on the right side of the fabric.

Mirror and duplicate blocks to create separate back and front sections.

Mark panel seam lines on back and front skirts.

Draw in asymmetric hemlines, lowering the lines at base of side panel.

Mark different asymmetric style lines at the top of back and front sections.

Draw in facing line (5 cm depth) to centre front on back section of skirt. Mark a godet point on front panel line.

Draw in shaping and darts (approx. 5 cm long) on side panels and top sections of the skirt, to finished low waist measure (80 cm).

Extend the darts on the top sections to style line.

Divide side panels and lower skirt sections as shown.

Back and front side panels Trace off side panels.

Cut up lines and insert flare, closing waist darts.

Add 5 cm flare at side seam hemline.

Lower skirt sections Trace off lower skirt sections.

Cut up all panels; insert required amount of flare.

Add 5 cm flare at side seam hemline.

Top sections Trace off top sections and close darts.

Godet Construct a godet to length and width

required.

Back and front facings Trace off facing, close darts.

4 Basic yoked skirts with panels

Trace the very simple skirt block; ignore the curved

waistline.

Mark points 0, 3 and 5 from the block.

0–A yoke depth (example is 6 cm). Square across.

Square up from point 3 on hipline to point B.

Skirt panels Divide the line A–B into a quarter the number of panels in the skirt (example shows a twelve panelled skirt). Trace off one panel.

Mark point C on side seam at yoke line; measure the

distance C–B. (example is 1.5 cm).

The top of each panel must be reduced by 0.5 cm to

fit the original yoke measurement. Shape to hipline.

Many panel variations can be made, for example:

(a) Panel is divided, and flare is inserted.

(b) Extra ease is inserted for gathers.

(c) Extra

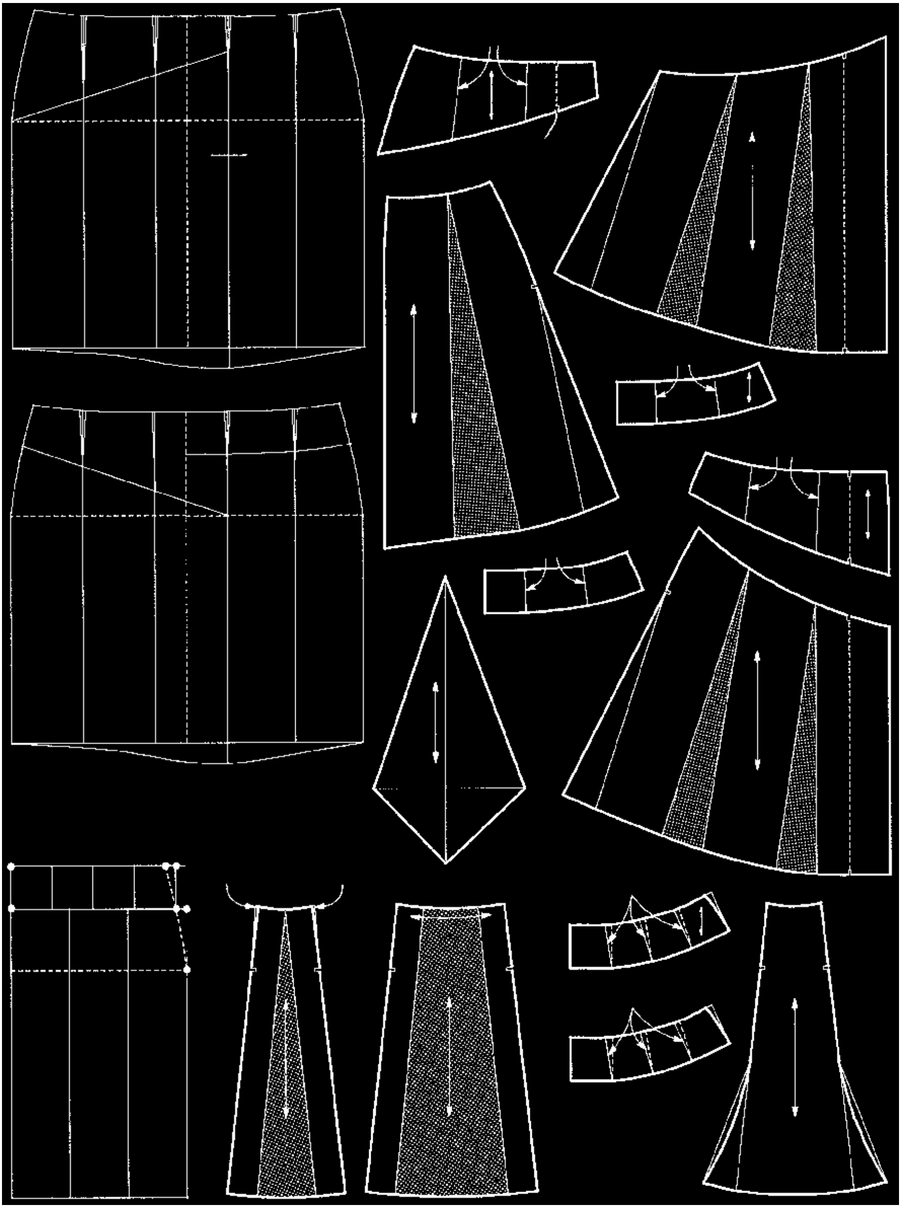
low

flare is added.

Yoke Extend the line from 0–5. Square up from C to point D on waist. Divide the rectangle 0, A, C, D into four sections. Trace off the sections.

Measure the distance 0–D and subtract one quarter the low waist measure. (Example: 23.6 − 20 = 3.6 cm). Divide by four (0.9 cm). Overlap each section of the yoke at the waistline 0.9 cm.

Shape in side seam 0.9 cm at waist. Trace round new yoke shape, curving waistline and side seam.



139

3 Asymmetrie panelled skirt

close darts

top

CF

front

section

godet

point

CF

CB and CF

front

skirt

front

panel seam line

section

close darts

fold

CF

back

front facing

close darts

and

facing

front

line

side

top

panels

back

section

CB

close darts

CB

CB and CF

back facing

panel seam line

back

front

CB

godet

back

4 Basic yoked skirts

skirt

section

with panels

5 D

0

0.25 cm

0.25 cm

overlap sections

gather

A

C

B

a

b

CB

c

back

3

CB and CF

yoke

overlap sections

fold

CF

front

back and front

yoke

skirt

skirt

skirt

panel

panel

panel

a

b

c

The basic shirt block

Measurements required to draft the block

21–24 half the measurement 4–21 plus 1 cm; square across.

The block can be drafted to size codes 8, 10, 12, etc, **4–25** the measurement 1–13 minus 0.2 cm; square or to XSMALL, SMALL, MEDIUM, LARGE, up to 26.

XLARGE from any of the size charts in this book

25–27 half the measurement 13–25; square down to (pages 12–14). Personal measurements (see page 178) 28 and 29. Draw armscye as shown in diagram,

can also be applied to the block.

touching points 16, 18, 27, 26, 23; and to touch points A size MEDIUM from the size chart on page 12 (for 2.75 cm from 13 and 2.25 cm from 25.

fashion garments) is used for this illustrated

21–30 1.5 cm buttonstand; square down.

example.

30–31 3.5 cm facing; square down. Shape neckline.

bust

88 cm

neck size

37 cm

12–32 2 cm (back pleat); square down.

nape to waist

41 cm

sleeve length

58.5 cm

armscye depth 21 cm

cuff size – shirts 21.5 cm

Sleeve

(page

13)

Square down from 0.

back width

34.4 cm

0–1 one quarter armscye measurement (see

measuring a curve on page 27): square across.

Body sections

0–2 sleeve length minus cuff depth plus 2 cm ease; Square up and down from 0; square across approx.

square across.

10 cm.

1–3 half the measurement 1–2; square across.

0–1 armscye depth plus 2.5 cm; square across.

0–4 half armscye measurement; square down to 5.

0–2 neck to waist; square across.

0–6 half armscye measurement, square down to 7.

0–3 shirt length required; square across.

Divide 0–4 into four sections; mark points 8, 9, 10.

1–4 half bust plus 9.5 cm; square up, square down Divide 0–6 into four sections; mark points 11, 12, 13.

to 5.

8–0 raise the curve: 1 cm at 9; 1.75 cm at 10.

0–6 3.5 cm; square across to 7.

Raise the curve at 11: 1 cm.

6–8 one

fifth neck size plus 0.2 cm; square down to

Hollow the curve at 13: 1 cm.

9.

5–14 one quarter the measurement 2–5 minus

0–10 one third measurement 0–9; draw curve from 0.5 cm; join 4–14.

8–10.

7–15 one quarter the measurement 2–7 minus

6–11 one

fifth armscye depth minus 0.5 cm; square

0.5 cm; join 6–15.

out.

Mark points 16 and 17 on the line from 3.

0–12 one

fifth the measurement 0–1 plus 1 cm;

14–18 1 cm; join 16–18 with a curve.

square half way across the block.

15–19 1 cm; join 17–19 with a curve.

1–13 half back width plus 2.5 cm; square up to 14

20 midway 2–18; square up to 21.

and 15.

21–22 one third the measurement 20–21.

15–16 1.25 cm; join 8–16.

20–23 0.75 cm; join 18–2 with a curve.

14–17 half the measurement 12–14 minus 1.5 cm.

14–18 0.5 cm; join 17–18 with a curve.

Cuff

7–19 5 cm; square across.

19–20 one

fifth neck size minus 0.6 cm.

Construct shaped cuff: length = cuff size plus 2 cm;

19–21 one

fifth neck size minus 1.6 cm.

cuff depth = approx. 7 cm. Mark buttonhole.

Draw neck curve from 20–21.

Draw curves at lower edge.

19–22 one

fifth armscye depth plus 0.5 cm; square

out.

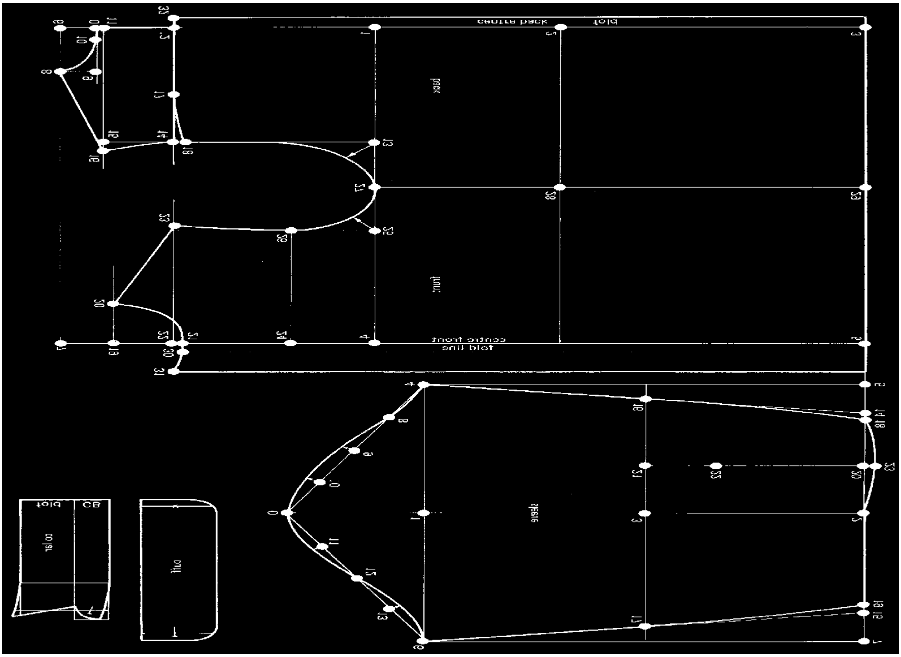
Collar

20–23 the measurement 8–16. Draw a line from 20

Construct a shirt collar (ref. 9 page 72).

to touch the line from 22.

Depth of shirt collar and stand approx. 8 cm.


centre back
fold
back
front
centre front fold line
sleeve
cuff
collar
fold
CB

141

142

The basic 'flat' overgarment blocks

For easy fitting jackets and overgarments.

Draw a line 0.75 cm below the line squared out from 10.

11–18 the measurement 11–15; draw front shoulder

Measurements required to draft the block

line to touch the new line at point 18.

Draw in the front armscye shape as shown in

The block can be drafted to size codes 8, 10, 12, etc, diagram to touch points 18, 17, 8.

or to XSMALL, SMALL, MEDIUM, LARGE,

XLARGE from any of the size charts in this book

Sleeve

(pages 12–14). Personal measurements (see page 178)

0–1 half the measurement 6–7 on body block plus can also be applied to the block.

1 cm; square across.

A size MEDIUM from the size chart on page 12 (for

0–2 sleeve length plus 1 cm; square across.

fashion garments) is used for this illustrated

0–3 the measurement of the armscye curve from example.

15–8.

The main figures construct the Jacket block, the

2–4 two-thirds the measurement 1–3 plus 0.5 cm; figures in brackets the Overgarment block.

join 3–4.

bust

88 cm

shoulder

12.2 cm

Divide 0–3 into six sections; mark points 5, 6, 7, 8, 9.

nape to waist

41 cm

back width

34.4 cm

Draw in the back sleeve head:

waist to hip

20.6 cm

armscye depth

21 cm

hollow the curve 0.5 cm at 5;

neck size

37 cm

sleeve length

58.5 cm

raise the curve 1.5 cm at 8 and 9.

Draw in the front sleeve head:

Back and front sections

hollow the curve 0.75 cm at 5;

Square down and across from 0.

raise the curve 1.75 cm at 8 and 9.

0–1 back neck to waist plus 3 cm; square across.

1–2 waist to hip; square across.

Sleeve pitch points

0–3 quarter bust measurement plus 4.5 cm (7 cm); Some sleeve adaptations require pitch points on the square down to 4 and 5.

sleeve and body sections.

0–6 2

cm.

Mark point 6 on the sleeve as a pitch point with a

6–7 armscye depth plus 4 cm (6 cm); square across notch. Measure the sleeve curve from 3–6.

to 8.

Measure along the armscye of the body sections the

6–9 half the measurement 6–7; square out.

same distance. Mark the pitch points with a notch.

6–10 quarter the measurement 6–9 minus 0.25 cm; square out.

The 'flat' kimono block

0–11 one

fifth neck size plus 0.4 cm (0.7 cm); draw

back neck curve.

Body sections

7–12 half across back plus 2.5 cm (4.5 cm); square Trace round basic back body shape of jacket, or up to 13 and 14.

overgarment blocks with the front neckline and

14–15 1.5 cm; join 11–15.

armscye depth line marked.

Draw in back armscye shape to touch points 15,

Mark points 0, 1, 2, 3, 4, 5.

13, 8.

3–6 1.5 cm. Join 2–6; extend the line.

6–7 the sleeve length.

Front section

Square out from the line 2–7 the measurement 2–4

0–16 one

fifth neck size plus 0.4 cm (0.7 cm); draw

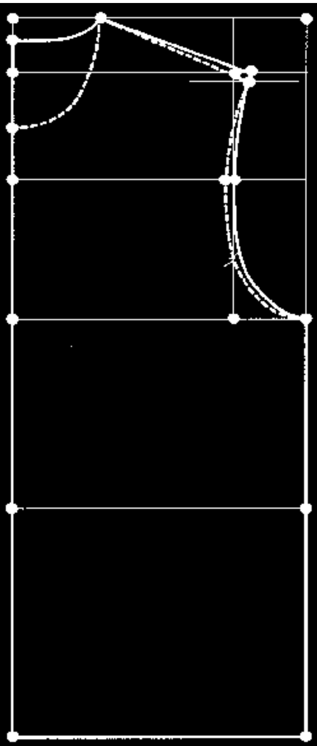
on the block sleeve used plus 2 cm. Mark point 8.

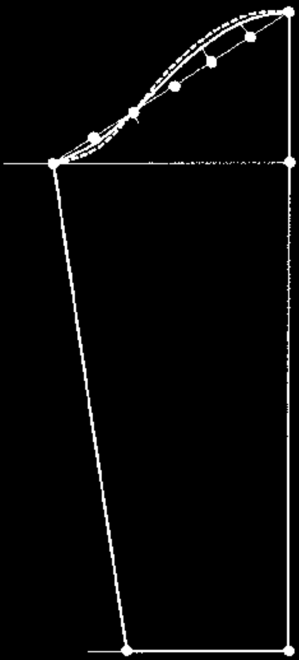
in the front neck curve.

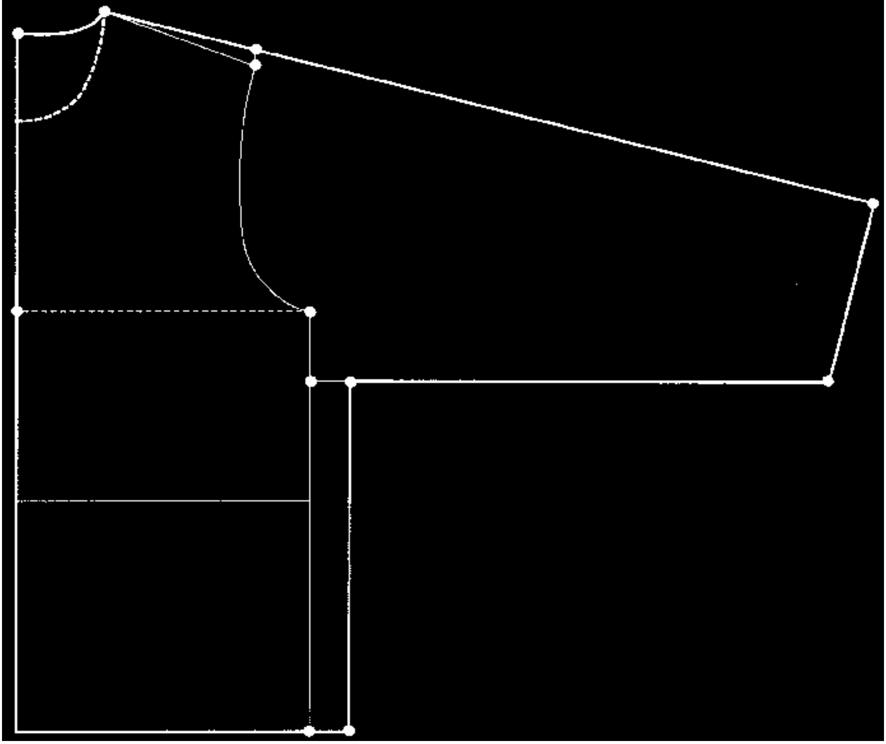
4–9 quarter the measurement 0–1.

13–17 0.75 cm (1 cm).

9–10 2 cm; square down to 11. Join 10–8.







11

0

3

6

14

15

10

0

18

16

9

8

9

6

7

17

13

5

pitch

points

pitch

1

points

3

sleeve

7

8

12

CB and CF

back and front

fold line

1

4

4

2

2

5

2

0

6

3

CB and CF

7

1

4

9

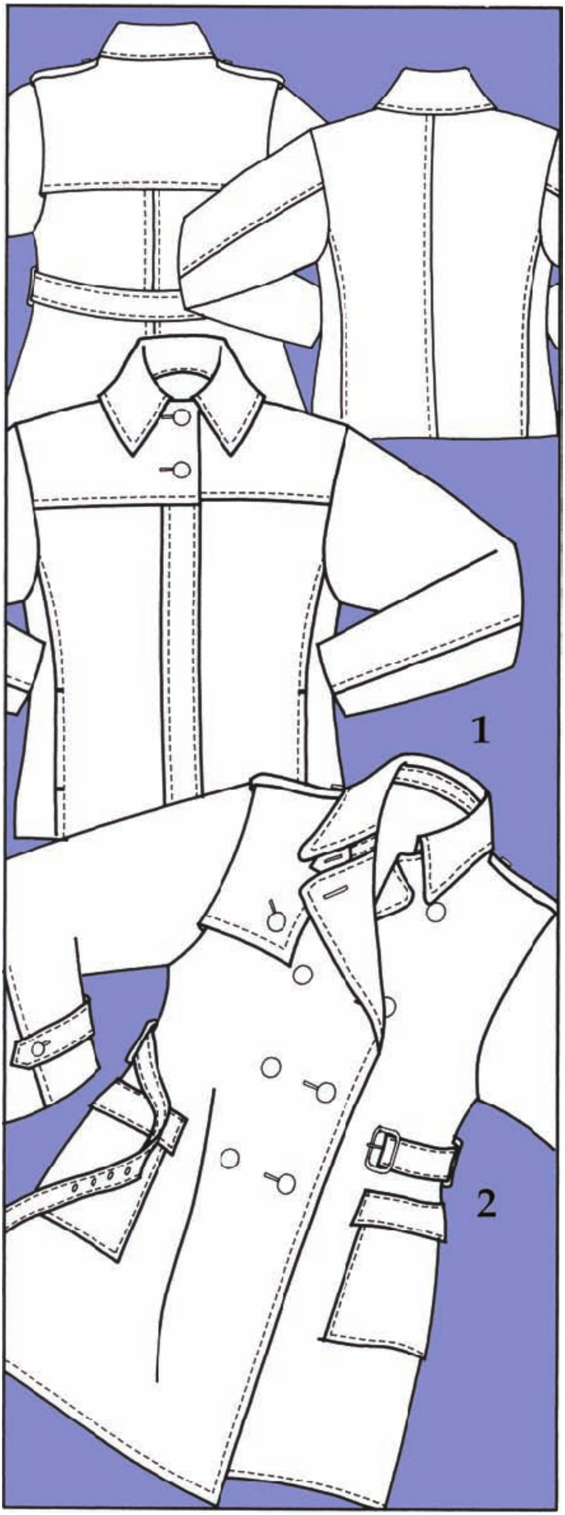
10

8

back and front

5

11


1
2

1 Jacket – inset sleeve

Trace off the back, front and sleeve of the 'flat' easy fitting jacket block.

Back and front Shorten to the required length.

Draw in vertical lines at the side panel positions.

Back Shape in the centre back seam 1 cm and lower the waist position 2 cm.

Shape in at the waist of the back panel line 2 cm.

Trace off the back.

Front and front yoke Shape in the waist of the front panel line 2 cm; square down to the hipline.

Draw in the front yoke line.

Draw in the buttonstand, mark buttonholes; mark the fly line.

Draw in the facing line. Draw in the pocket bag.

Trace off the front and front yoke.

Side panel Trace off front side panel and reverse the section.

Trace off back side panel and join to the front panel at the side seam.

Sleeves Reverse front sleeve along the centre line.

Mark elbow line halfway down the underarm seam.

Draw a back seam line.

Separate the sleeves. Shape both sleeves 1 cm out at elbow and 1 cm in at the hem.

Facing and fly piece Trace off facing. Trace off fly piece along the fly line; reverse the piece along the fold line.

Collar Construct convertible collar (ref. 8 page 72).

Pocket bag Trace off pocket bag.

2 Trench coat – inset sleeve

Trace off the back, front and sleeve of the ‘flat’

overgarment block.

Back and front Lengthen to the required length.

Add 3 cm flare to side seam hem.

Draw in back and front flaps.

Back Add 5 cm pleat extension. Construct 10 cm pleat facing. Trace off back flap.

Front Lower front neck 1 cm.

Draw in buttonlines, add buttonstand and rever,

mark buttonholes. Draw in facing line.

Trace off front flap.

Draw in pocket and pocket flap.

Sleeves Construct as above example. Draw in

sleeve strap 3.5 cm. Trace off strap.

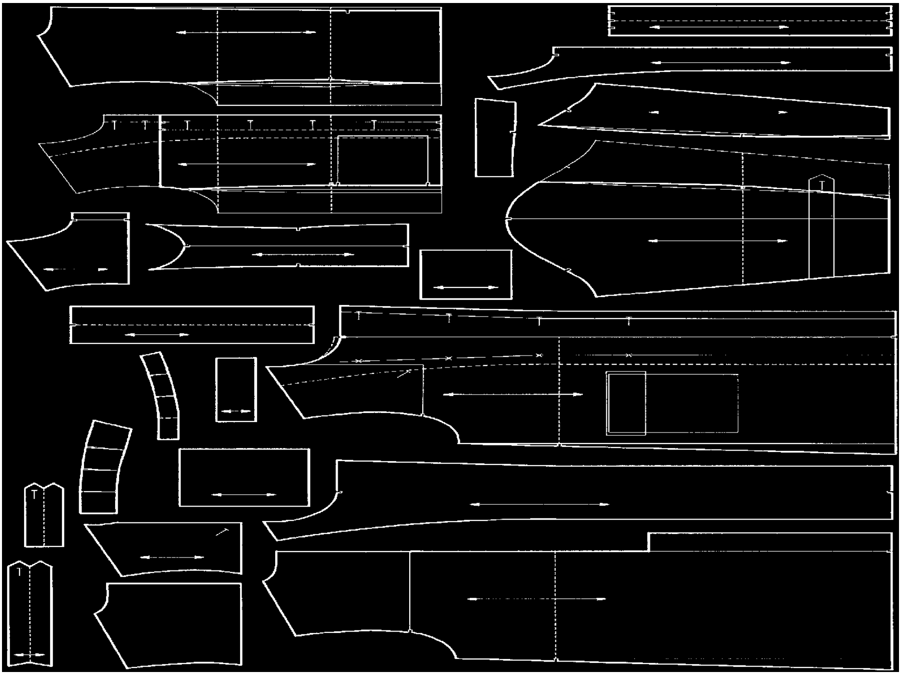
Facing and collar Trace off facing.

Measure neck to centre front. Construct a shirt collar without button extension (ref. 9 page 72).

Construct a small collar tab the width of collarstand.

Pockets Trace off pocket and pocket flap.

Shoulder strap Construct shoulder strap, length of shoulder and twice the width required.



1 Jacket – inset sleeve

2

o

c

h

c

n

e

r

T

t

a –

shoulder strap

sleeve strap

pleat

facing

i

t

e

s

n

e

v

e

e

l

s

yoke

collar

CB

fold

front

CB

front

CF

back

collar

CF

stand

fold

CB fold

CB

front

back

flap

flap

fold line

pocket flap

side

panel

pocket

fly line

facing line

1 cm

2 m

c

2 cm

side seam

2 cm

CF

facing

CB

pocket

back

bag

fold

CB

collar

front

facing

fly

piece

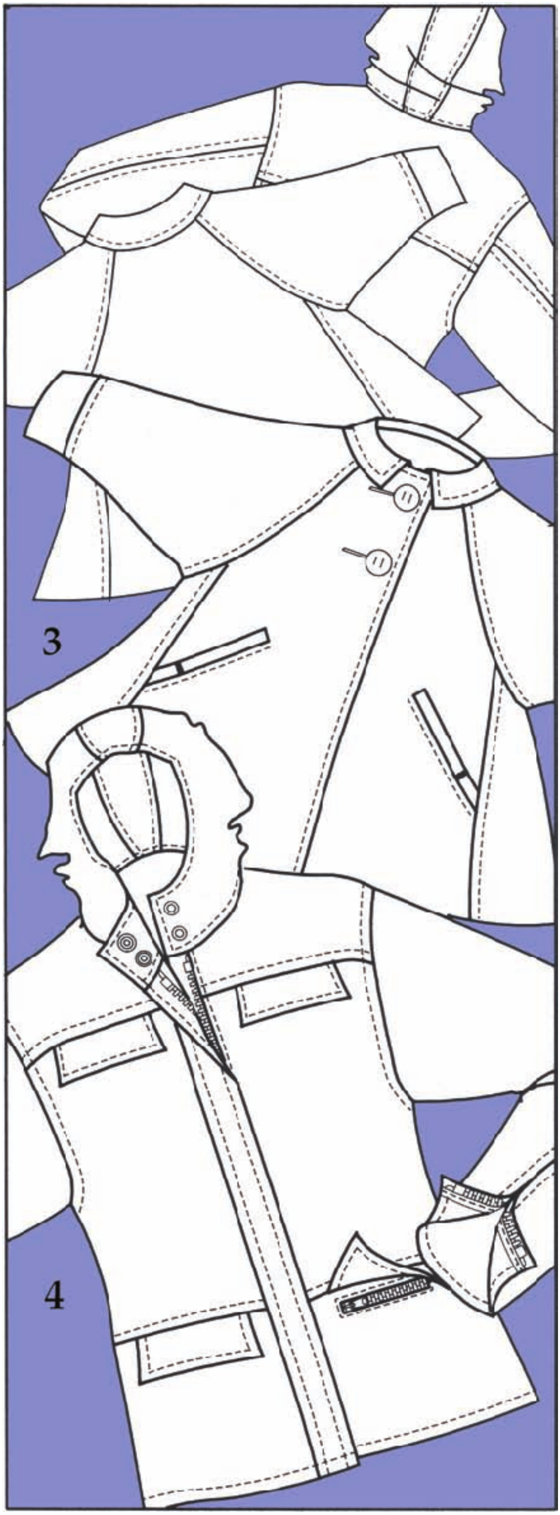
back

sleeve

sleeve

centre line

fold line


3
4

3 Swing jacket/coat – kimono sleeve

Trace off the back and front of the required 'flat'

kimono block.

Back and front Extend to the required length.

Mark point 1 at the underarm. 1–2 5 cm; 1–3 5 cm; join 2–3 with a curve. Draw in raglan seams.

Mark 4 one third length of raglan seam. Join 3–4.

Curve the sleeve seam.

Draw in side panel lines. Divide back into three

sections, front and side panels into two sections.

Draw in the buttonstand, buttonholes and facing.

Back Trace off back section. Cut up the dividing lines and open at the hem the required amount.

Front Trace off front section. Cut up the dividing line and open at the hem the required amount.

Draw in pocket welt and pocket bag.

Back and front side panels Cut up the dividing line and open at the hem the required amount.

Sleeve Trace off sleeves. Reverse front sleeve and join on the centre line. Cut along the lines 3–4 and open approx. 4 cm. Redraw the sleeve curves.

Draw lower sleeve line. Trace off lower sleeve.

Collar and facing Trace facing. Construct shaped convertible collar without stand (ref. 8 page 72).

Pockets Trace off welt and pocket bag.

4 Weatherwear – kimono sleeve

Many variations of this style can be applied.

Weatherwear is usually fully self lined.

Trace off the back, front and sleeve of the easy fitting

'flat' kimono block.

Attached hood only: lower back neck 0.5 cm; widen

back and front neck 1 cm; lower front neck 1 cm.

Back and front Draw in armscye shape from

approx. 5 cm past shoulder point 3 on the original

block.

Take 1 cm darts from sleeve sections; two thirds

length of back armscye, half the length of front

armscye.

Mark point 1 at the underarm. 1–2 5 cm; 1–3 10 cm.

Join 2–3.

Back Draw in back yoke line. Trace off yoke.

Front sections Reverse

front. Draw in front yoke

and lower panel line. Draw in pocket flaps and

pocket bags. Draw in pocket zip line. Draw in the fly piece approx. 2.5 cm each side of centre line.

Trace off the three front panels. Reduce the front

edge of the panels by the width of the zip.

Sleeves Trace off sleeves. Join on the centre line.

Cut along the lines 2–3 and open approx. 3 cm.

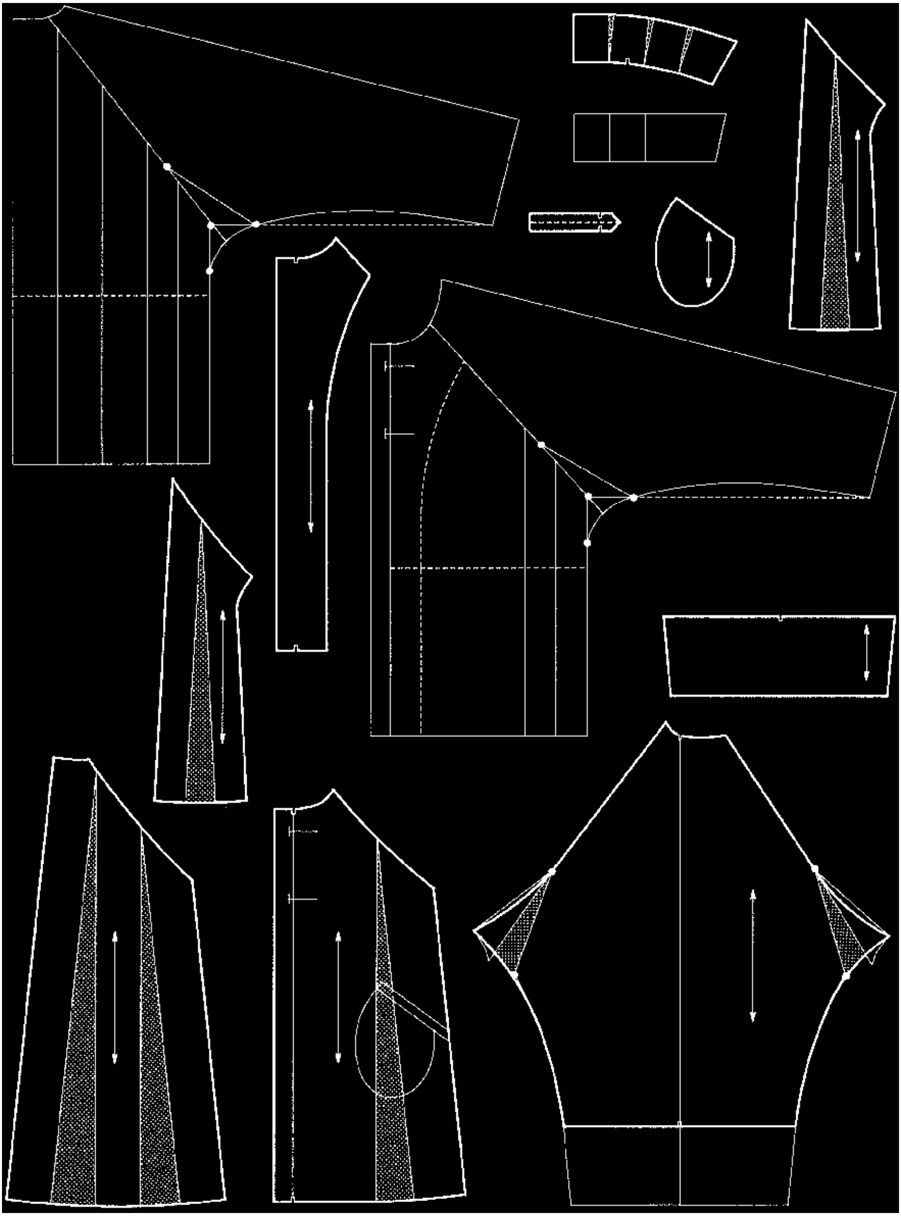
Redraw sleeve head and underarm with curves.

Draw in back seam line. Trace off back sleeve.

Fly piece and zip extension Trace off fly piece along the fly line. Trace off zip piece from the centre line. Reverse both pieces along the fold lines.

Pockets Trace off pocket bags and pocket flaps.

Hood Construct hood (ref. 5 page 155).



3 Swing jacket – kimono sleeve

CB

fold

collar

CB

collar

CB

fold

4

back

pocket welt

1

3

pocket

bag

2

side

front

facing

panel line

4

1

2

3

1

2

front

1

3

CF

2

lower

facing line

sleeve

panel line

1

2

1

2

side

back

4

4

front

back

CB

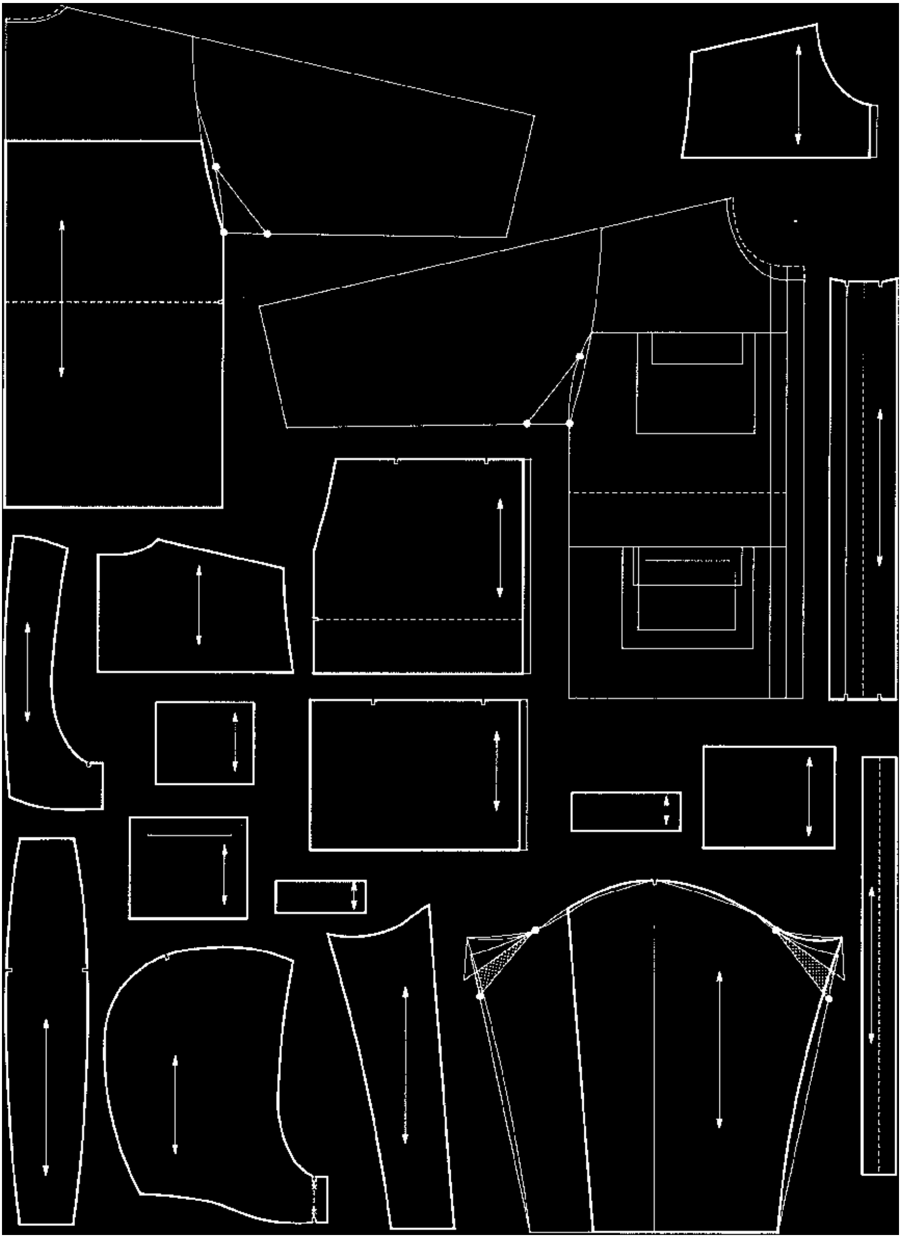
sleeve

CF

3

3

centre line



3(block)

4 Weatherwear –

kimono sleeve

front

yoke

CF

3

CB

3(block)

back

fold

1

2

fly

piece

3

CF

CF

2

1

front

fold line

middle

front

CF

CB

zip line

back

fold

yoke

zip

zip

pocket

piece

bag

hood

lower

CF

facing

front

top pocket flap

top

pocket

bag

fold line

lower

lower pocket flap

pocket

bag

hood

panel

3

3

back

sleeve

sleeve

2

hood

2

CF

PART TWO: FLAT CUTTING

10 Basic and easy fitting garments (jersey and knitted fabrics)

Basic and easy fitting blocks for jersey wear

150

Basic and easy fitting tee shirt, track suit

and jersey blocks

150

Raglan adaptation

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1a Easy

fitting tunic

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1b Easy

fitting smock top

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2

Basic tee shirt and dress

adaptation 152

3

Track suit top – inset sleeve

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4

Fleece jacket – raglan sleeve

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Track suit trousers

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6 Simple

hood

157

7 Gusseted

hood

157

Knitwear blocks

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The basic grid

158

1 Basic

shoulder

158

2 Extended

shoulder

160

3 Raglan

sleeve

160

Computers and knitted garment

shapes 162

Special notes on fashion styles

The basic tee shirt block is based on body measurements with minimum ease, thus allowing the stretch or styling to take care of body movement. As well as basic fitted tee shirts, it is also used for many fashion garments in the low or medium price range because it offers a simple means of styling and an adaptable fit.

Jersey fabric allows simple basic shapes to be cut that will stretch and drape around the body. The type of tops illustrated on page 152 can have a close or easy fit depending on the block that is chosen to adapt.

Sizing

Sportswear and some casual wear manufacturers usually use sizing breaks of XSMALL, SMALL, MEDIUM, LARGE and XLARGE. The example sizings used in the following drafts are based on size MEDIUM, High-street fashion garments. See page 12.

Basic and easy fitting blocks for jersey wear

Basic and easy fitting tee shirt, track suit and jersey blocks

Instructions are given for three jersey block fittings Draw in armscye curve from 11 through 9 to 12.

from this block draft.

9–14 one

fifth neck size minus 1.5 cm; (minus

The three block fittings are:

1.5 cm) (minus 0.5 cm); draw in front neck curve.

(1) A basic body fit with no ease allowance for

Back and front are the same except for the neck

basic fitting tee shirt tops and dresses; main

curve.

instructions.

(2) A block with 2 cm ease allowance for easy

Sleeve

fitting tee shirts, tops and dresses (first

Square down from 15.

brackets).

15–16 half the measurement 0–3 plus 1 cm.

(3) A block with 4 cm ease for track suits and fleece **15–17** jersey sleeve length plus 2 cm; (plus 3 cm) jackets (second brackets).

(plus 5 cm); square across.

The illustration shows (2) the easy fitting tee shirt **15–18** the measurement of the diagonal line from block.

11–12 on the body section plus 1.5 cm (plus 2 cm)

(plus 2 cm); square down to 19.

Measurements required to draft the block

18–20 one third the measurement 18–15.

Draw in sleeve head.

The block can be drafted to size codes 8, 10, 12, etc, **18–20** hollow the curve 0.6 cm.

or to XSMALL, SMALL, MEDIUM, LARGE,

20–15 raise the curve 1.75 cm.

XLARGE from any of the size charts in this book

19–21 one third the measurement 17–19; join

(pages 12–14). Personal measurements (see page 178)

18–21.

can also be applied to the block.

A size MEDIUM from the size chart on page 12 (for

fashion garments) is used for this illustrated

Short sleeve

example.

15–22 sleeve length required; square across to 23.

23–24 dependent on the length approx. 2 cm

bust

88 cm

shoulder

12.2 cm

(2.5 cm) (not applicable); join 18–24.

nape to waist

41 cm

back width

34.4 cm

waist to hip

20.6 cm

armscye depth

21 cm

Raglan adaptation

neck size

37 cm

sleeve length

54.5 cm

(jersey)

Trace off block required.

Mark points 7, 9, 12, 18, 20.

Body sections

Square down and across from 0.

Body sections

0–1 neck to waist; square across.

Delete the curve from 9–12.

0–2 finished length; square across.

12–25 the measurement 18–20 on sleeve; curve the **0–3** armscye depth is basic measurement; (plus line inwards 0.75 cm. 7–26 3 cm; join 25–26.

1 cm) (plus 4.5 cm); square across.

Cut away shaded sections.

0–4 half the measurement 0–3; square across.

0–5 one quarter the measurement 0–4; square

across.

Sleeve

0–6 one

fifth neck size; (plus 0.25 cm) (plus 1 cm);

Trace sleeve as full section.

square up.

Extend the centre line of sleeve.

6–7 1 cm; draw in neck curve.

Draw parallel lines each side of the centre line; the **3–8** half back width is basic measurement; (plus measurement of each line from the centre line is 0.5 cm) (plus 3.5 cm); square up to 9 and 10.

3 cm.

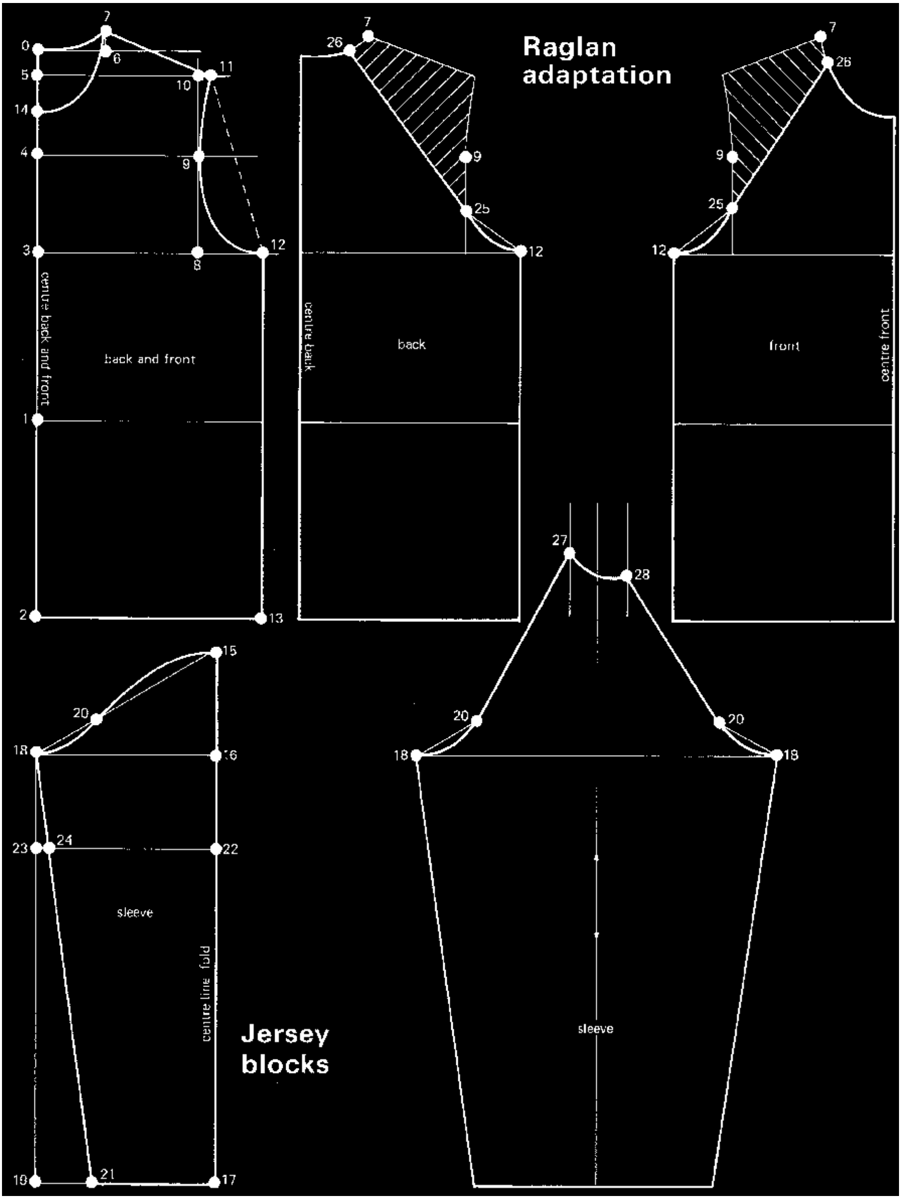
10–11 0.5 cm; (0.5 cm) (1.5 cm); join 7–11.

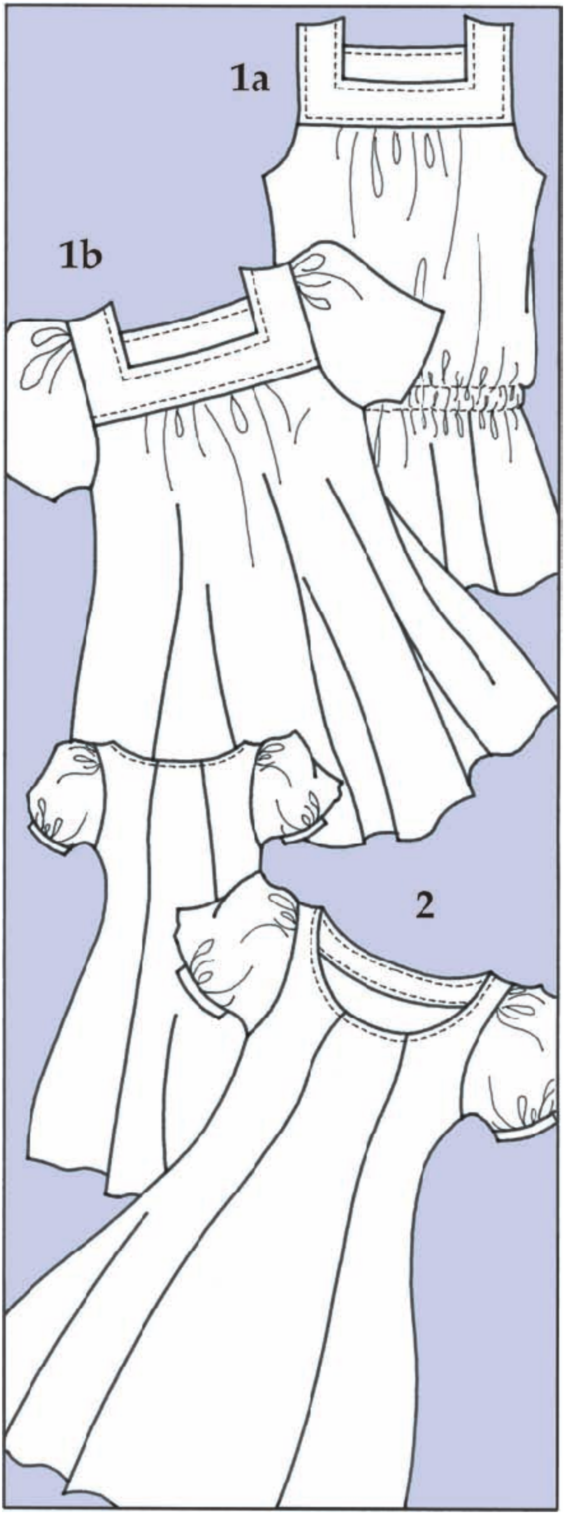
20–27 the measurement 25–26 on the back.

3–12 quarter bust is basic measurement; (plus 2 cm) **20–28** the measurement 25–26 on the front.

(plus 4.5 cm); square down to 13.

Join 27–28 with a curve.


Raglan adaptation
Jersey blocks
centre back and front
back and front
centre back
back
front
centre front
sleeve
centre line fold
sleeve


1a
1b
2

1a Easy fitting tunic

Trace the easy fitting tee shirt block to length required.

Mark a horizontal yoke line. Mark point A at armscye edge on yoke line, B at side seam.

A–C = 1 cm.

Square up to shoulder line. Redraw armscye curve.

Draw in front and back square neckline.

Reduce depth of shoulder 1 cm at yoke neckline.

Draw in elastic casing lines approx. 8 cm below waistline.

Back and front sections Trace off back and front sections. B–D = 1 cm.

Add 1.5 cm flare at hem of side seam.

Draw side seam line from D to new hem point.

Add 10 cm to centre back line and centre front line.

Yoke Trace off yoke sections.

1b Easy fitting smock top

Trace off easy fitting tee shirt block to length required.

Construct yoke line and neckline as for easy fitting tunic.

Back and front sections Trace off back and front sections. Mark points C and B on armscye curve.

Add 3 cm flare at hemline.

Draw side seam line from B to new hem point.

Add 10 cm to centre back and centre front lines.

Divide the pattern into three sections.

Cut up section lines and insert approx. 6 cm of flare.

Yoke Trace off yoke sections.

Sleeve Trace off sleeve. E–F on the sleeve equals the distance C–B on body sections.

Divide the sleeve into three sections as shown.

Cut up section lines and open at the sleeve head.

Raise the sleeve head 3 cm.

F–G = 1 cm. Draw new sleeve outline as shown.

2 Basic tee shirt and dress adaptation

Back and front sections Trace off separate back and front sections of the basic tee shirt block.

Extend the block to dress length if required.

Mark tee shirt line approx. 13.5 cm below waistline.

Draw in new waistline approx. 5 cm above natural

waistline. Draw in low neckline on back and front.

Draw in panel lines, 8 cm from the centre front and

9.5 cm from the centre back.

Construct a neckline dart on the front panel:

width = 0.6 cm, length = 5 cm.

Construct a neckline dart on the back panel:

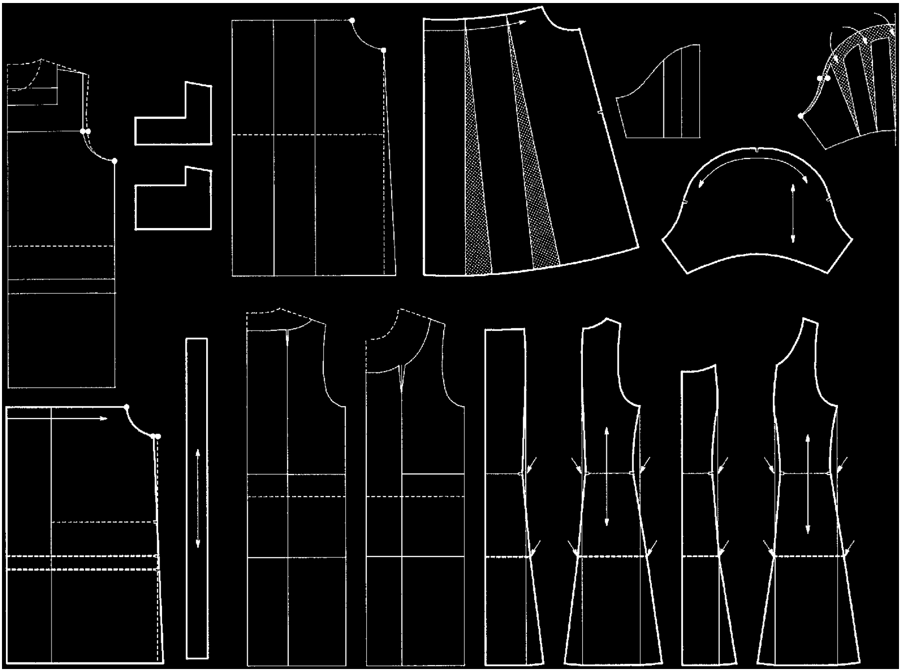
width = 1.2 cm, length = 6.5 cm.

Back and front panels – tee shirt Trace of back and front panels to tee shirt length along panel lines and neckline dart lines.

Shape panel lines at waist and hips as shown.

Dress option Add extra fl are required to hemline from the tee shirt line (illustration shows 4 cm on panel lines and 5 cm on side seams).

Sleeve Construct a puff sleeve (ref. 16 page 54).



1b Easy fitting smock top 1.5 cm

C

gather

3 cm

1a Easy fitting tunic

B

CB and CF

CB and CF

G

sleeve

F

sleeve

f

CF

E

C

old

A

front yoke

CB and CF

B

fold

gather

f

CB

old

back yoke

back and front

back and front

sleeve

2 Basic tee shirt and dress adaptation

elastic

casing

back and front

C

D

gather

B

0.75 cm

1.5 cm

1.25 cm

1.5 cm

CB and CF

panel line

panel line

CF f

CB f

CB

old

CF

old

1 cm

1.5 cm

0.25 cm

1.5 cm

tee shirt line

tee shirt line

fold

back

back and front

front

back

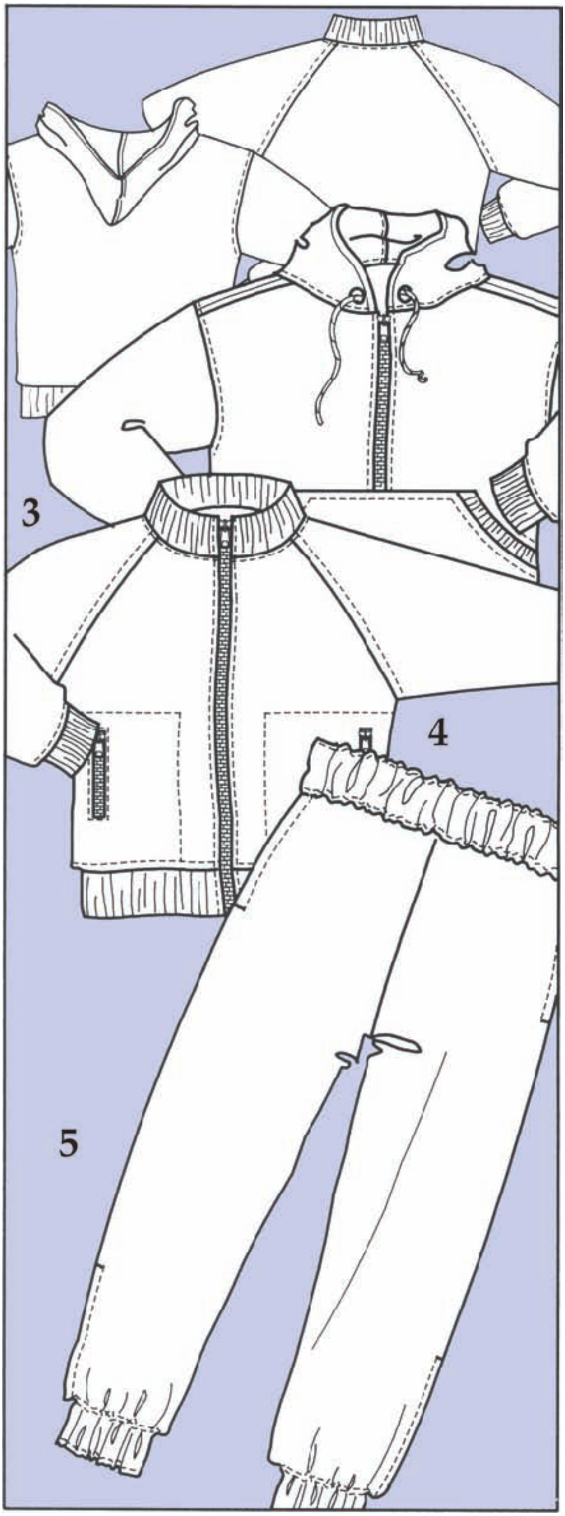
front

back

panel

front

panel


3
4
5

3 Track suit top – inset sleeve

Trace off the track suit block.

Back and front Shorten to the required length.

Shorten again by rib depth measurement.

Widen the neckline 1 cm at the shoulder; lower front

neckline 1 cm.

Take a strip approx. 3 cm from the front shoulder

and add to back shoulder.

Back Draw in back yoke line.

Trace off back yoke. Trace off the back section.

Front Draw in pocket shape.

Draw in facing line.

Trace off the front section.

Sleeves Reverse front sleeve along the centre line.

Hollow front curve of sleeve 0.7 cm.

Shorten sleeve by rib depth measurement.

Facing Trace off facing. Reduce centre front by half the zip width.

Hood Construct the simple hood to new neckline measurement (ref. 4 page 157).

Pocket Trace off the front pocket.

4 Fleece jacket – raglan sleeve

Trace off the track suit block.

Back and front Shorten to the required length.

Shorten again by rib depth measurement.

Construct basic raglan adaptation (page 150).

Curve the raglan lines outwards 0.7 cm.

Back Trace off the back section.

Front Draw in pocket shape and zip pocket

position.

Reduce centre front by half the zip width.

Draw in facing line. Trace off the front section.

Sleeves Reverse front sleeve along the centre line.

Hollow the raglan lines 0.5 cm.

Shorten sleeve by rib depth measurement.

Mark point 1 at point 25 on the block.

Mark point 2, 5 cm from the underarm point.

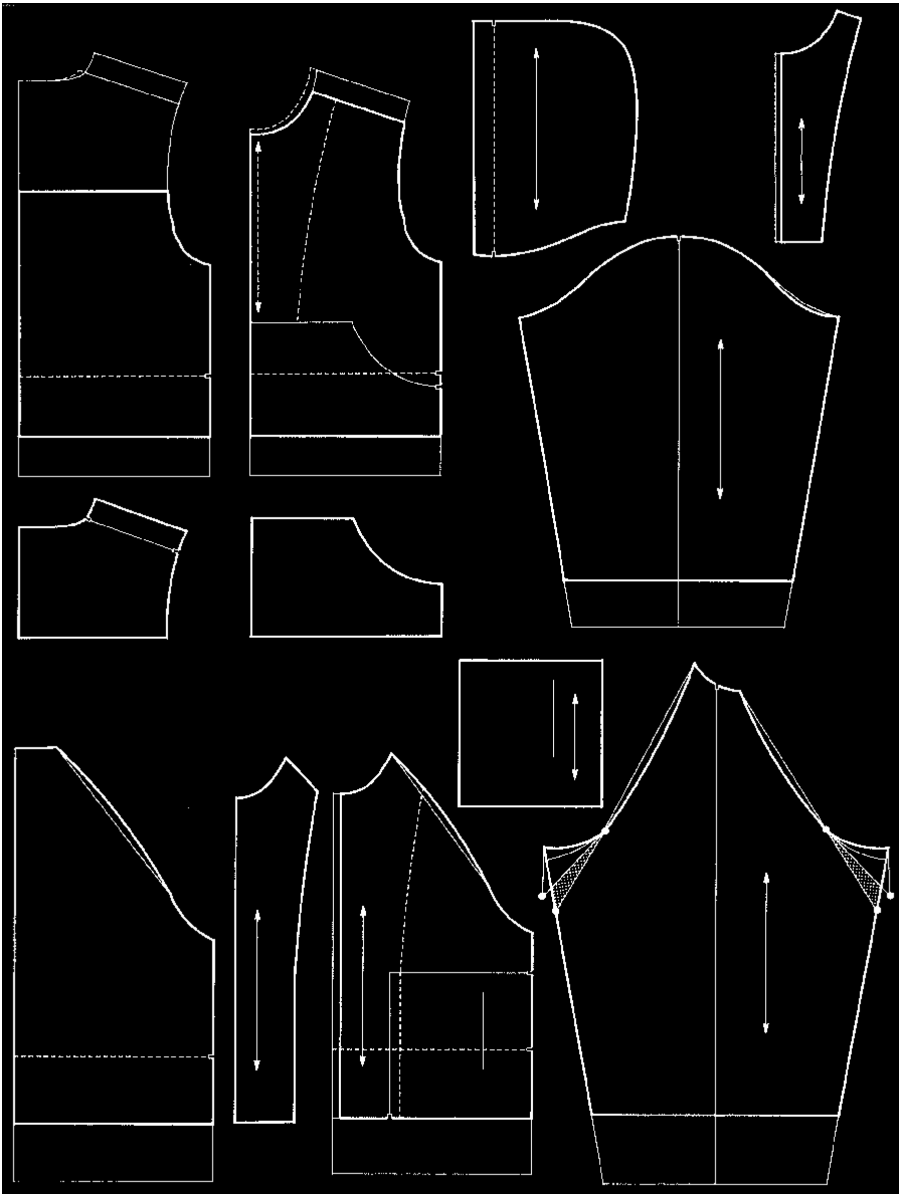
Cut along the line 1–2 and open approx 2.5 cm to 3.

Redraw the raglan and underarm line.

Facing Trace off facing. Reduce centre front by half the zip width.

Collar Construct straight rib collar two thirds the measurement of the neck measurement or a standing straight fabric collar (ref. 6 page 72).

Pocket Trace off pocket.



155

3 Track suit top – inset sleeve

facing

fold line

hood

CF

zip cut line

facing line

front

CB fold

back

CF

sleeve

fold

centre line

CB fold

CF fold

front

pocket

back

yoke

4 Fleece jacket – raglan sleeve

pocket

bag

facing

1

CB fold

1

sleeve

3

3

2

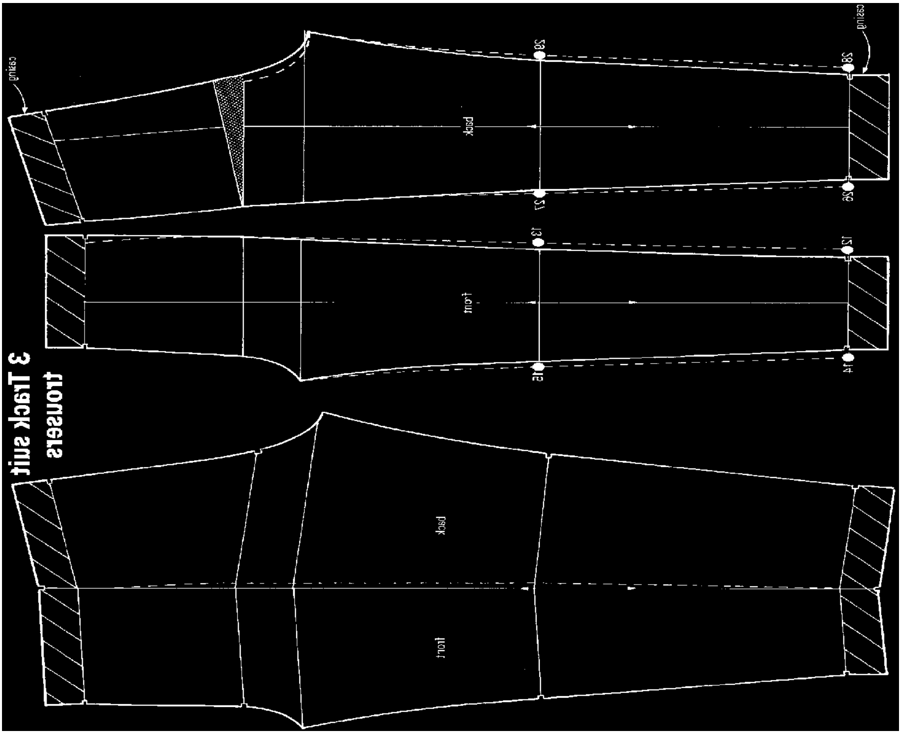
2

front

back

CF

centre line


3 Track suit
trousers
casing
casing
back
front
back
front

156

5 Track

suit

trousers

5 Track suit

Trace off easy fitting trousers (page 132).

trousers

Mark points 12, 13, 14, 15, 26, 27, 28, 29.

Insert ease at the back crutch line (page 132); measurement of the seat wedge is 3.5 cm.

Reduce the trousers at the knee and hem if required.

Square up from front hipline to waistline.

Draw new side and inside leg seams as shown.

Add 5 cm to hem and waistline for casings.

Note The trouser leg can be cut in one piece.

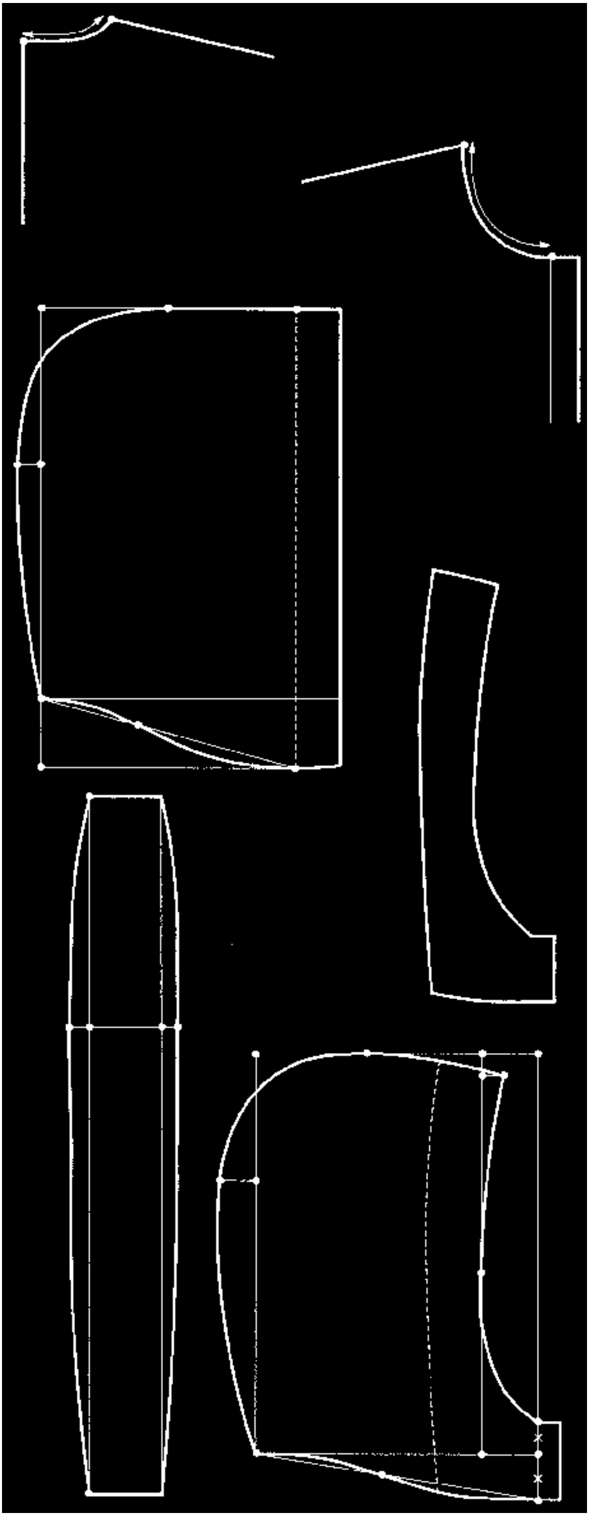
Draw a vertical line.

Place side seams of

front and back trousers together at waist and hem as shown. Extra ease can be inserted at the original side seam position.

‘Ski trousers’

Trace close fitting trouser block, insert ease at crutch line. Narrow legs to required width. The trouser legs can be cut in one piece as the track suit trousers, but a side dart will remain.



Hoods

Measure the neck

Measure the neck

The neckline of hooded garments is usually

back

lowered and widened. Measure the new neckline.

6 Simple

hood

Square down and across from 0.

0–1 three quarters the nape to waist

measurement plus 4 cm; square out.

1–2 6 cm; square out.

4

0

Draw a line from 1, measurement of front and front

6

back neckline, to touch the line from 2.

CF

Mark point 3; square up to 4.

1–5 back neckline measurement.

Draw in neck curve.

Raise the curve 0.5 cm from 1–5.

8

7

Lower the curve 1 cm from 3–5.

hood

0–6 half the measurement 0–4.

fold line

0–7 quarter measurement 0–1 plus 2 cm.

7–8 2 cm. Draw in the head curve 1, 8, 6, 4.

CF

Extend the front line approx. 4 cm for a facing.

7 Gusseted

hood

Square down and across from 0.

0–1 three quarters the nape to waist

1

measurement plus 6 cm.

5

1–2 measurement of front and back neckline.

Square up to 3.

2

3

2–4 3.5 cm; join 1–4.

0

1–5 Back neckline measurement.

Raise the curve 0.5 cm from 1–5.

Lower the curve 1 cm from 4–5.

3–6 one

fifth the measurement 0–3; square down

to 7.

0–8 half the measurement 0–6.

facing

0–9 quarter 0–1 plus 2 cm.

9–10 3

cm.

2

3

6–11 2

cm.

4

5

8

6

3

11–12 2 cm. Draw in head curve 1, 10, 8, 12.

0

6–13 half the measurement 6–7.

12

11

4–14 7 cm. Draw in front curve 12, 13, 14.

Add buttonstand, mark stud positions.

Draw in facing line; trace off facing.

hood

hood

10

9

Gusset

gusset

Draw a rectangle; length = head curve

measurement, width = 6 cm.

Mark points 0 and 1.

13

0–2 one third the measurement 0–1; square across to 3.

facing line

2–4 and

3–5 1.5 cm. Draw in gusset curves.

14

7

2

1

1

5

4

Knitwear blocks

Very easy fitting garments can be cut from simple

The basic grid for knitwear can be used for

basic shapes; this is particularly so if you are

designing shapes for hand or machine knitting. The

working with knitted garment shapes or with jersey

examples show basic shapes, but far more complex

fabric. The fabric will stretch over the complex areas shapes can be developed.

of the body (i.e. the bust) or areas of the body that have extreme movement (i.e. elbows).

The basic grid

Note that this grid has no ease included; it is basic **6–8** quarter bust measurement; square up to the body measurements. Substantial extra ease must be armscye.

added for movement and styling.

Draw a line from 7 for the shoulder length

measurement; construct the line at a 17° angle from

Measurements required to draft the block

the line from 0.

7–9 shoulder

measurement.

The block can be drafted to size codes 8, 10, 12, etc, or to XSMALL, SMALL, MEDIUM, LARGE, XLARGE from any of the size charts in this book

1 Knitwear adaptation sleeve –

(pages 12–14). Personal measurements (see page 178)

basic shoulder

can also be applied to the block.

A size MEDIUM from the size chart on page 12 (for

Trace the basic grid; mark points 0, 1, 2, 6, 7, 9.

fashion garments) is used for this illustrated

Mark point 10 on the centre back line at required

example.

length; square across.

10–11 is one quarter chest plus the amount of ease bust

88 cm

neck size

37 cm

and styling requirements; square up.

nape to waist

41 cm

sleeve length

Mark point 12 at armscye depth required.

armscye depth 21 cm

(jersey)

54.5 cm

Square across both ways at 9, using the shoulder line shoulder

12.2 cm

waist to hip

20.6 cm

to square from.

back width

34.4 cm

Mark point 13 where the ‘square across line’ meets

the line from 0.

Draw a line, to create the armscye shape, from 12

Body sections

to touch the ‘squared across line’. Mark this

Square down and across from 0.

point 14.

0–1 1.5

cm.

Square out from 9 the jersey sleeve measurement, to

0–2 one

fifth neck size minus 0.2 cm.

point 15.

1–3 armscye depth measurement; square across to **15–16** = cuff depth.

mark armscye line.

16–17 = width required at the top of the sleeve rib; **3–4** 2.5 cm; square across to mark bust line.

square across to 18. Join 17–12.

1–5 neck to waist measurement; square across to Fold the section 7, 13, 9 along the shoulder line; mark waistline.

mark point 19.

5–6 waist to hip measurement; square across to Trace back using the shoulder line 7–19.

mark the hipline.

Trace front using the shoulder line 7–13.

0–7 one

fifth neck size minus 0.2 cm; draw in back

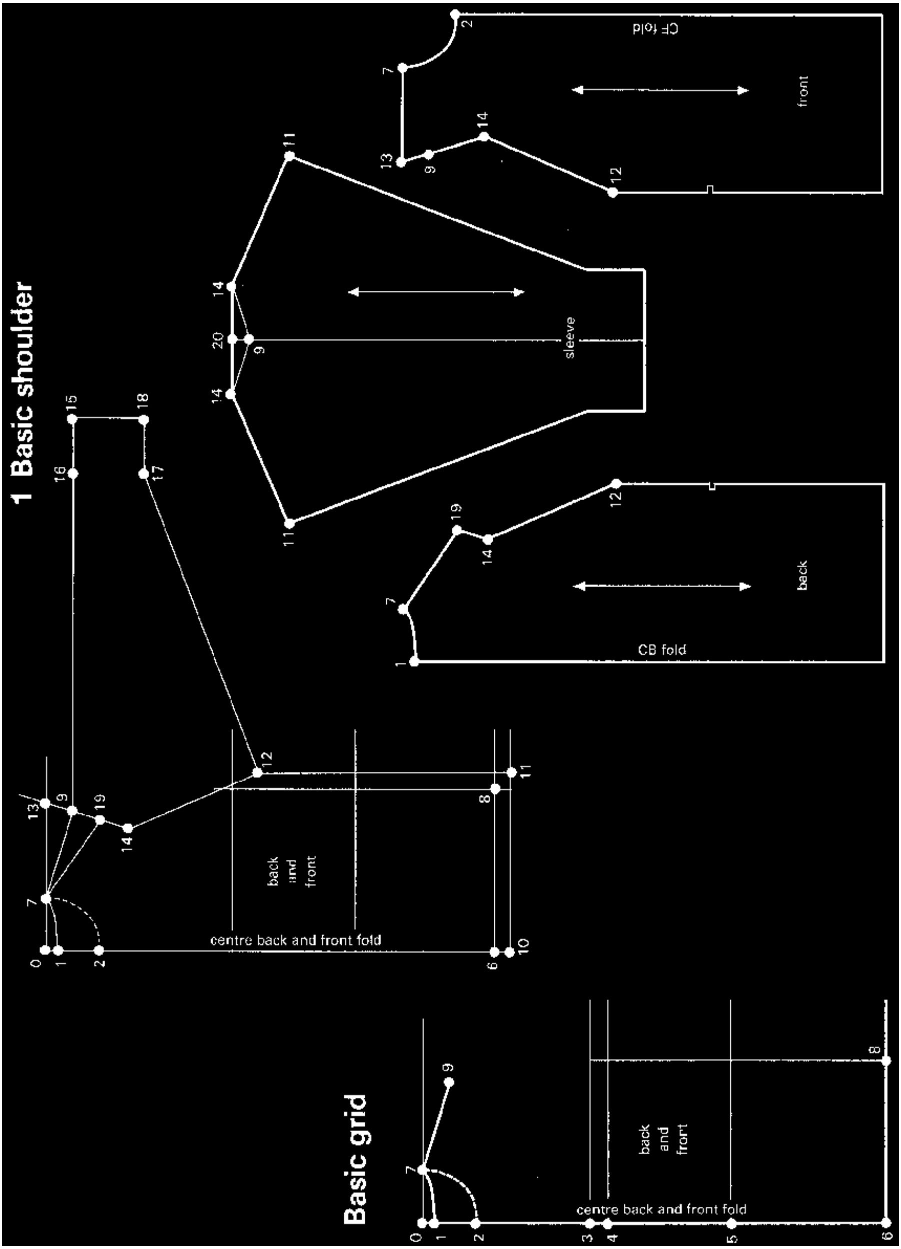
Trace sleeve; mirror the sleeve on the centre

neck curve from 7–1; draw in front neck curve from

line.

7–2.

Join point 14 to 14.


1 Basic shoulder
Basic grid
centre back and front fold
back and front
CB fold
CF fold
back
front
sleeve
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

2 Knitwear adaptation inset sleeve –

3 Knitwear adaptation raglan sleeve

extended shoulder

Trace the basic grid; mark points 0, 1, 2, 6, 7, 9.

Trace the basic grid; mark points 0, 1, 2, 6, 7, 9.

Mark point 10 on the centre back line at required

Mark point 10 on the centre back line at required

length; square across.

length; square across.

10–11 is one quarter chest plus the amount of ease **10–11** is one quarter chest plus the amount of ease and styling requirements; square up.

and styling requirements; square up.

Mark point 12 at armscye depth required.

Mark point 12 at armscye depth required.

Extend the shoulder line from 9, the jersey sleeve

Extend the shoulder line to position required; mark

measurement, to point 13.

point 13. Draw in armscye shape from 12–13 as

13–14 = cuff depth.

required.

14–15 = width required at the top of the sleeve rib; Square out from 13 the jersey sleeve measurement, square across to 16. Join 15–12.

minus the shoulder extension to point 15. Square

Draw a line from the underarm point 12 to point 17

down.

on the front neck.

15–16 = cuff depth.

Draw a line from the underarm point 12 to point 18

16–17 = width required at the top of the sleeve rib; on the back neck.

square across to 18. Join 17–12.

Trace off front, back and sleeve sections as shown.

Trace front, back and sleeve sections.

Mirror the front sleeve and place the sleeve sections together along the centre sleeve line.

Note Some knitted garments do not have any

armscye shaping. The body section side seam

Note Although this section concentrates on the continues from 12 until it meets the extended basic shaping, many variations of shape can take

shoulder seam. The sleeve is then drafted from this

place by the use of varying stitches to create different new point.

types of fabric. This method can shape the garment

Note that this method produces a very dropped

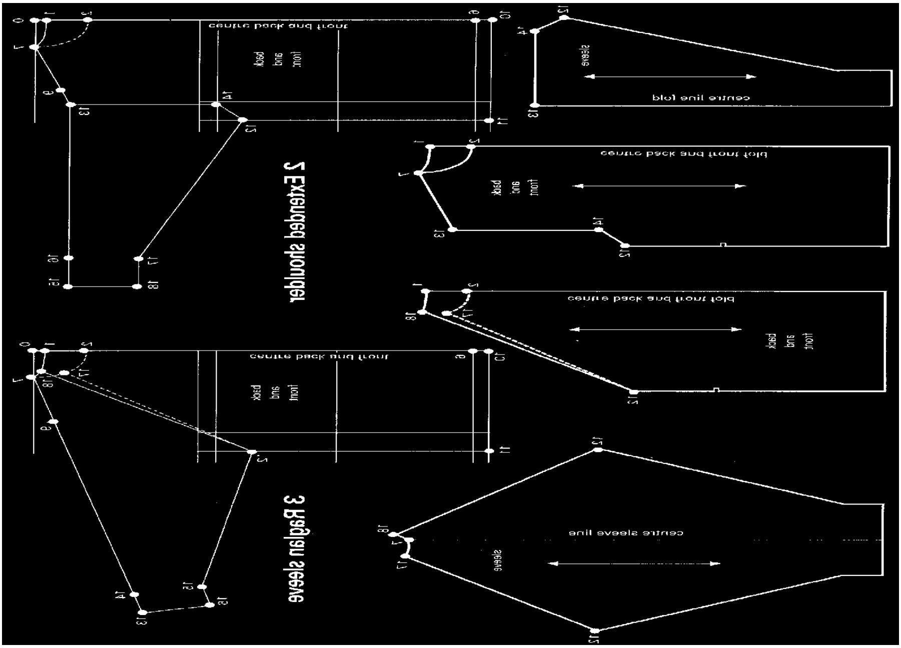
internally. For example, moss stitch creates a flat

shoulder and surplus fabric in the area of the

fabric. This can be used with a form of ribbing that

underarm.

will shape the garment into the body.


2 Extended shoulder
3 Raglan sleeve
centre back and front
back and front
sleeve
centre line fold
fold front and back
centre sleeve line

161

162

Computers and knitted garment shapes

also use simple shapes in order to minimise fabric

wastage.

The knitting industry is now highly computerised.

The craft knitting industry, which uses domestic

Many machines can knit garments that employ

knitting machines, is now creating adventurous

fashioning to create internal shaping. Firm and stable shapes and designs. Computer programs, which knitted fabric is used to construct this type of

are surprisingly inexpensive, are available. These

garment. Garments constructed in loose or unstable

programs offer basic shapes which can then be knitted fabric, or highly patterned fabric, usually rely modified, or the program will allow you to create on the classic, simple, knitted shapes shown on the

your own shapes. Some programs have a

previous pages. Manufacturers of cheaper knitwear,

grading system for sizing as well as individual

which is cut from ‘body blanks’ and then overlocked,

sizing.

PART TWO: FLAT CUTTING

11 Close fitting garments (stretch and jersey fabrics) *Close fitting body blocks 164*

Leggings block

164

1 Close

fitting ribbed top

166

2 Basic cap sleeved tee

166

3 Sports skirt with pants

166

4 Stretch

dress

166

Bodyshapers 168

Swimwear 168

The close fitting blocks are constructed to be smaller than the body measurements and to stretch to the body shape. Some adjustments to the horizontal measurements may have to be made (this should be related to the stretch and relaxation of different fabrics). For more technical information and block construction see Chapters 2 and 7 in *Fabric, Form and Flat Pattern Cutting* also by this author.

The sleeve measurement used is the jersey sleeve length, but this may still have to be adjusted to fabric stretch and relaxation properties.

Sizing

Sportswear and some casual wear manufacturers usually use sizing breaks of XSMALL, SMALL, MEDIUM, LARGE and XLARGE. The example sizings used in the following drafts are based on size MEDIUM, High-street fashion garments (see page 12).

Close fitting body blocks

These blocks are drafted for maximum stretch, fine

Draw in sleeve head. Hollow the curve 0.6 cm from

ribbed jersey or Lycra fabrics. Extra ease needed for 20–21; raise the curve 2 cm from 17–21.

less flexible jersey fabrics is shown in brackets.

19–22 half wrist plus 0.5 cm (1 cm); join 20–22.

Measurements required to draft the block

Short sleeve

17–23 sleeve length required; square across to 24.

The block can be drafted to size codes 8, 10, 12, etc, **24–25** 1.5 cm; join 20–25 with a curve.

or to XSMALL, SMALL, MEDIUM, LARGE,

XLARGE from any of the size charts in this book

Leggings block

(pages 12–14). Personal measurements (see page 178)

can also be applied to the block.

hips

94

cm

A size MEDIUM from the size chart on page 12 (for

body rise

28 cm

fashion garments) is used for this illustrated

waist to floor 104 cm

example.

high ankle

21 cm

bust

88 cm

neck size

37 cm

Front

nape to waist

41 cm

armscye depth

21 cm

Square down and across from 0.

back width

34.4 cm

wrist

16 cm

0–1 body rise minus 1 cm; square across.

sleeve length

54.5 cm

0–2 waist to floor minus 8 cm; square across.

(jersey)

1–3 half the measurement 1–2; square across.

1–4 quarter hip measurement minus 2 cm; square **Body sections**

up to 5.

Square down and across from 0.

5–6 1

cm.

0–1 neck to waist plus 1 cm (0.5 cm); square across.

4–7 quarter the measurement 4–5.

0–2 finished length; square across.

4–8 one sixth the measurement 1–4.

0–3 armscye depth minus 3 cm (1 cm); square

Join 6–7 and 7–8 with a curve touching a point:

across.

sizes 6–14 2.25

cm from

4

0–4 half the measurement 0–3; square across.

sizes 16–26 2.5

cm from

4

0–5 one eighth the measurement 0–4; square across.

2–9 half high ankle measurement minus 0.5 cm.

0–6 one sixth neck size (plus 1 cm); square up.

3–10 two thirds the measurement 1–4 minus 0.5 cm.

6–7 1.3 cm; draw in neck curve.

Draw inside leg seam; join 9–10 with a straight line, **3–8** half back width minus 2.5 cm (1 cm); square up join 8–10 curving the line inwards 0.75 cm.

to 9 and 10.

10–11 1 cm; join 7–11.

Back

3–12 quarter bust minus 3 cm (1 cm); square down **5–11** 4

cm.

to 13 on the waistline, 14 on the hemline.

11–12 3 cm; join 12–0.

Draw in armscye curve, from 11 through 9 to 12.

4–13 one third measurement 4–5.

13–15 3 cm (2 cm); draw in side seam 12, 15, 14.

8–14 one

fifth measurement 1–4.

0–16 one sixth neck size minus 1 cm (0.5 cm); draw Join 12–13 and 13–14 with a curve touching a point: in front neck curve.

sizes 6–14 3.75

cm from

4

Back and front are the same except for front neck

sizes 16–26 4

cm

from

4

curve.

9–15 2

cm

10–16 3

cm.

Sleeve

Draw inside leg seam; join 15–16 with a straight line, Square down from 17.

join 14–16, curve the line inwards 0.75 cm.

17–18 half the measurement 0–3 plus 1 cm (0.5 cm).

17–19 jersey sleeve length plus 4 cm (2 cm); square **Creating a one-piece pattern** across.

Trace round back section (heavy line).

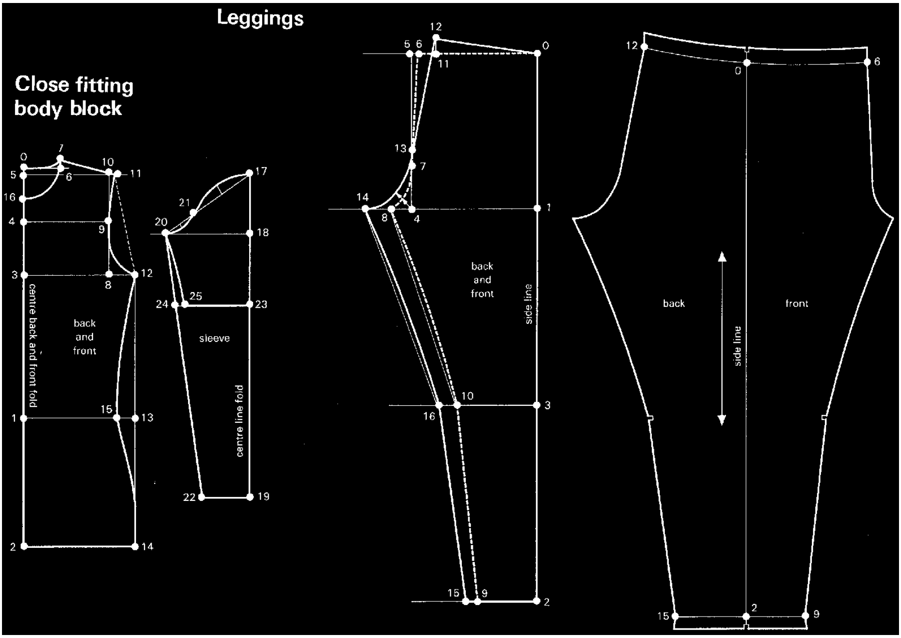
17–20 the measurement of the diagonal line from Trace round front section (dotted line).

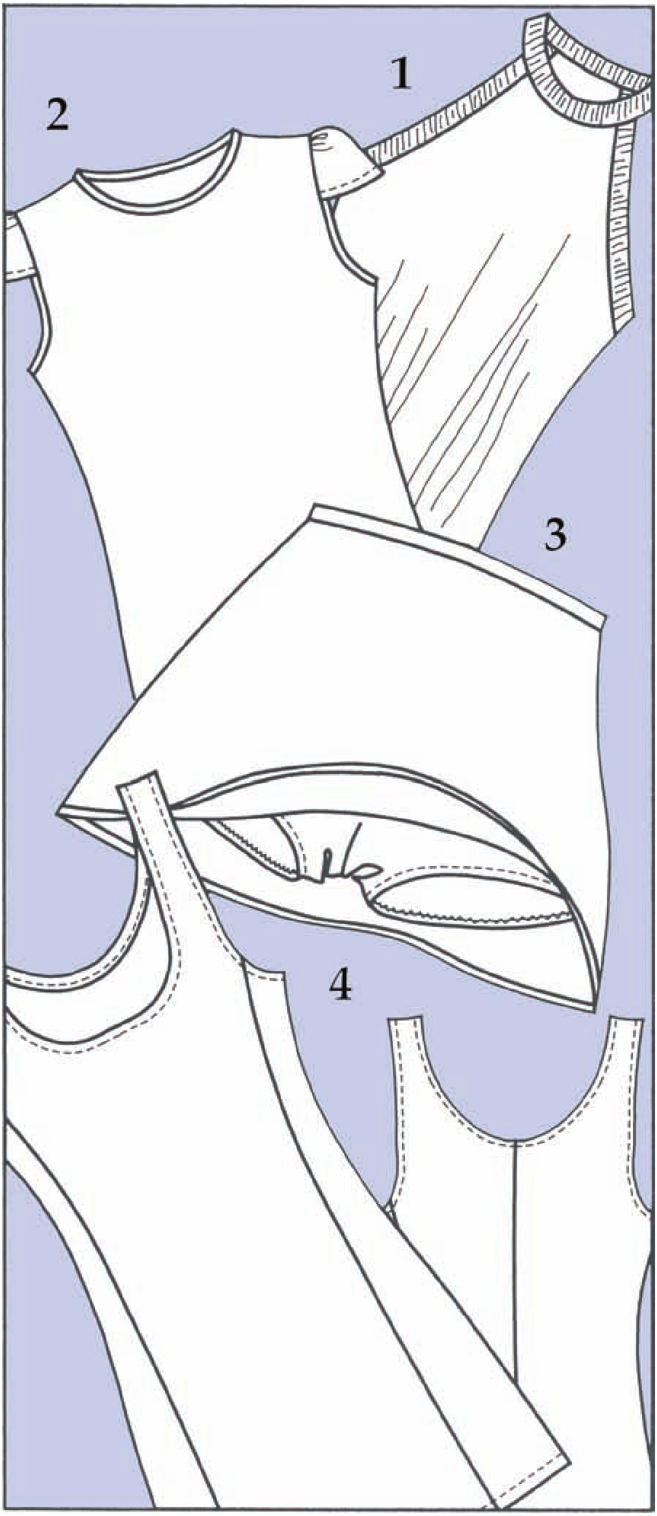
11–12 on body section plus 0.5 cm.

Mirror the front and place the side seams together.

20–21 one third measurement 17–20.

Add 2.5 cm facing at the top, 2 cm facing at the hem.


Leggings
Close fitting body block
centre back and front fold
back and front
sleeve
centre line fold
back and front
side line
back
front
side line


1
2
3
4

1 Close

fitting ribbed top

2 Basic cap sleeved tee

Trace off the block for maximum stretch fabric to the Trace off the block for less flexible jersey fabric to the required length.

required length.

Back and front sections Draw in the lowered

Back and front sections Draw in lowered neckline neckline and cut-away armscye line. Draw in the as required.

width of ribbed edging around the neck and sleeves.

Sleeve Draw in the cap section on the sleeve.

Trace off the back and front sections.

Mark points 1 and 2. Measure the length.

Measure the same length on the bodice armscye

point 3–4. Mark a notch at point 4.

Trace off the top cap section of the sleeve. Divide

into four sections.

Draw a vertical and horizontal line.

Cut and open the sections as shown.

Trace round the new sleeve shape.

3 Sports skirt with pants

Back and front skirt Square out and down from 0.

0–1 waist to hip minus 6 cm.

0–2 skirt

length.

1–3 quarter hip measurement minus 1 cm.

Square down to 4.

0–5 quarter waist measurement plus 1.5 cm.

5–6 1 cm; draw in waist curve.

4–7 2 cm; join 3–7. Join 3–6 with a curve.

Draw a vertical line from the centre of the waistline to the hem.

Cut and open at the hem approx. 3.5 cm.

Pants Square down from 0.

0–1 waist to hip minus 6 cm; square out.

0–2 body rise minus 5.5 cm; square out.

1–3, **1–4** quarter hip measurement minus 3.5 cm.

Square up to 5 and 6, and down to 7 and 8.

5–9 2 cm. Join 3–9.

7–10 quarter 1–3 plus 1cm; join 3–10 with a curve.

10–11 5

cm.

11–12 2.5

cm;

join

10–12.

6–13 1 cm; join 0–13.

8–14 3.25

cm;

square

out.

14–15 quarter 2–8 plus 2.5 cm; join 4–15 with a curve.

15–16 5

cm.

16–17 2.5 cm; draw leg curve 17, 2, 12.

4 Stretch

dress

Trace off the block for less flexible jersey fabric to the required length.

Back and front sections Draw in lowered neckline as required. Draw in armscye line.

Draw in front panel line.

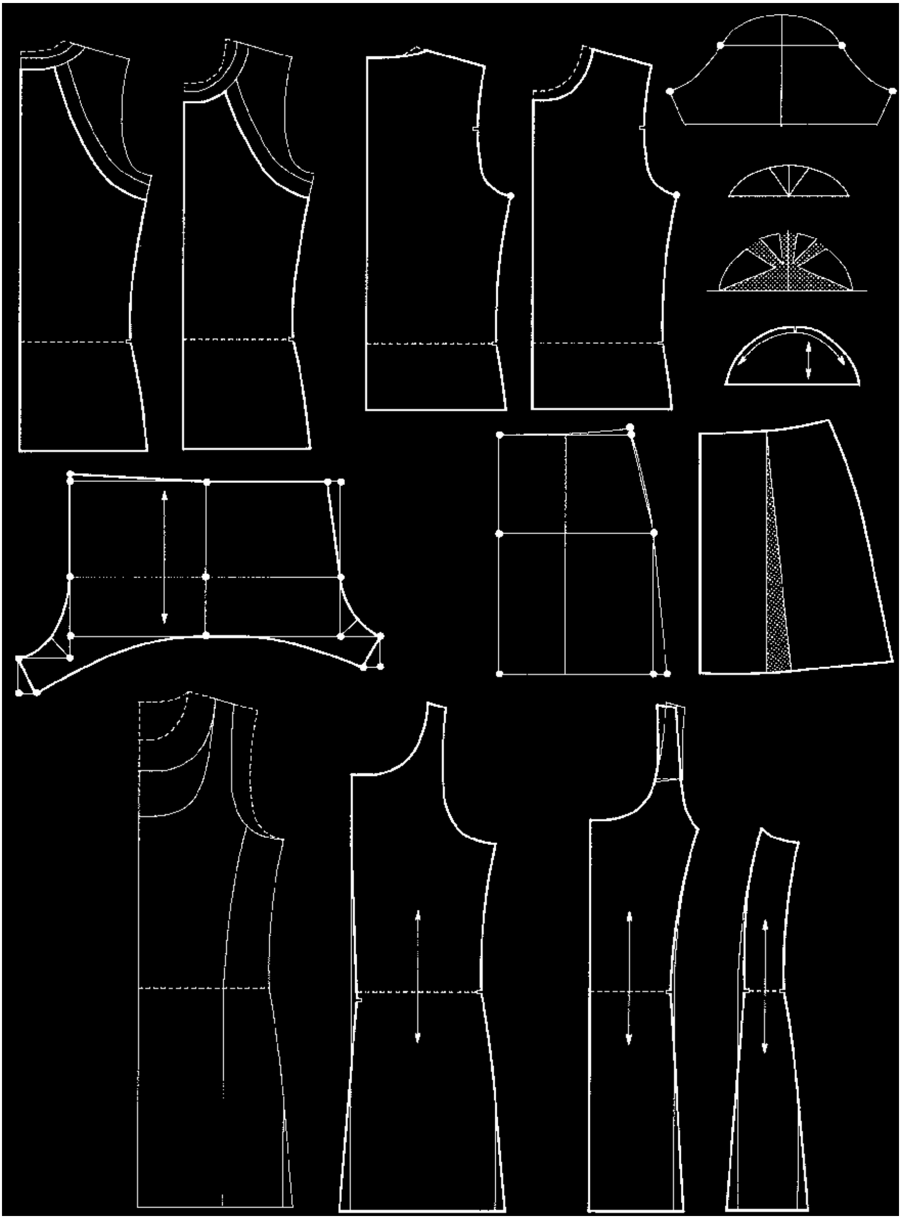
Trace off back and front sections.

Back Shape waist in 1 cm at a point 2 cm below the natural waistline. Add 1.5 cm flare to hem.

Front Shape waist 0.5 cm. Add 1.5 cm flare to hem.

Cut and overlap the neckline 0.5 cm.

Side panel Shape waist in 1 cm. Add 1.5 cm flare to hem.



167

1 Close fitting ribbed top

2 Basic cap sleeved tee

1

1

2

sleeve

2

4

4

sleeve

CB fold

CF fold

CB fold

CF fold

3

3

sleeve

k

c

a

b

front

k

c

a

b

front

gather

sleeve

6

0

5

13

3 Sports

0

9

6

5

skirt

CB and CF fold

CB

front

with

1

3

back

back

CF

1

pants

and

CB and CF

front

4

3

back

and

front

8

7

10

15

2

14

11

12

2

7

4

16

17

4 Stretch

dress overlap

CB

CB and CF

CF fold

back

back

front

side

and

front

front

Bodyshapers

Measurements required to draft the block

2–19 one eighth bust measurement plus 1 cm;

square across 3.5 cm to 20.

The block can be drafted to size codes 8, 10, 12, etc, **2–21** square out 6 cm for gusset line; join 21–17.

or to XSMALL, SMALL, MEDIUM, LARGE,

Draw in back leg; curve line 21–17 outwards 0.5 cm.

XLARGE from any of the size charts in this book

Draw in gusset curve; curve line 20–21 inwards

(pages 12–14). Personal measurements (see page 178)

0.3 cm.

can also be applied to the block.

Trace off gusset. Draw a curved line from 21 to a

A size MEDIUM from the size chart on page 12 (for

point 0.5 cm above 2. Add 2 cm to the line 19–20.

fashion garments) is used for this illustrated example.

Front

0–22 one sixth neck size minus 1 cm; draw in front bust

88 cm

neck size

37 cm

neck curve.

nape to waist

41 cm

sleeve length

2–23 half the measurement 2–19; square across 2 cm armscye depth

21 cm

(jersey)

54.5 cm

to 24; square up 2 cm to 25; join 25–17.

back width

34.4 cm

wrist

16 cm

25–26 half the measurement 25–17.

Draw in front leg; curve line inwards 1.75 cm at 26.

Back

Sleeve

Square down and across from 0.

Square down from 27.

0–1 neck to waist plus 1 cm; square across.

27–28 half the measurement 0–3 plus 1 cm.

1–2 body rise; square across.

27–29 jersey sleeve length plus 3 cm; square across.

0–3 armscye depth plus 1.5 cm; square across.

27–30 the measurement of the diagonal line from **0–4** half the measurement 0–3; square across.

11–12 on body section plus 0.5 cm.

0–5 one

fifth the measurement 0–4; square across.

30–31 hollow the curve 0.6 cm.

0–6 one sixth neck size; square up.

31–27 raise the curve 2 cm.

6–7 1.5 cm; draw in neck curve.

29–32 half wrist plus 0.5 cm; join 30–32 with a **3–8** half back width minus 0.5 cm; square up to 9

curve.

and 10.

10–11 1 cm; join 7–11.

Short sleeve

3–12 quarter bust minus 1.5 cm; square down to 13

27–33 sleeve length required; square across to 34.

on the waistline, 14 on the body rise line.

34–35 1.5 cm; join 30–35 with a curve.

Draw in armscye curve, from 11 through 9 to 12.

1–15

Sleeveless bodyshaper

quarter measurement 1–2; square across to 16.

12–36 2.5

cm.

16–17 3

cm.

11–37 4.5 cm; draw in new armscye curve 36–37.

13–18 4.25 cm. Draw in side seam.

Swimwear – basic shape

See diagram on page 170.

22–23 half the measurement 16–22.

Draw in front leg; curve line inwards 1.75 cm at 23.

Back

2–24 measurement 2–20; square out 6 cm to 25.

Construct swimwear block as for bodyshaper block

Curve line 21–25 inwards 0.3 cm.

up to point 7.

Lower bottom curve from 25 to 0.5 cm below point

3–8 half back width minus 4.5 cm; square up to 9

24.

and 10 on the line from 0. Join 7–10.

3–11 quarter bust minus 4 cm; square down to 12 on the waistline, 13 on the body rise line.

Swimwear – bra top

Draw in armscye curve, from 10 through 9 to 11.

1–14 quarter measurement 1–2; square across to 15.

Trace off the front block, mirror front as shown.

15–16 0.5

cm.

3–26 half measurement 3–11 minus 2 cm; join 7–26.

12–17 2 cm. Draw in side seam.

Swing a line, the length of 7–25, to create a 10 cm

2–18 6 cm; join 16–18.

dart at 26. Mark point 27.

Draw in back leg; curve line 16–18 outwards 0.5 cm.

Draw a line 4 cm long to touch the line from 5

Lower bottom curve from 18 to 0.5 cm below point 2.

at 28.

Draw in armscye line 11–28.

Front

Draw in bra shape, draw neckline and seam line in

3–19 half measurement 3–4. Draw front neck curve.

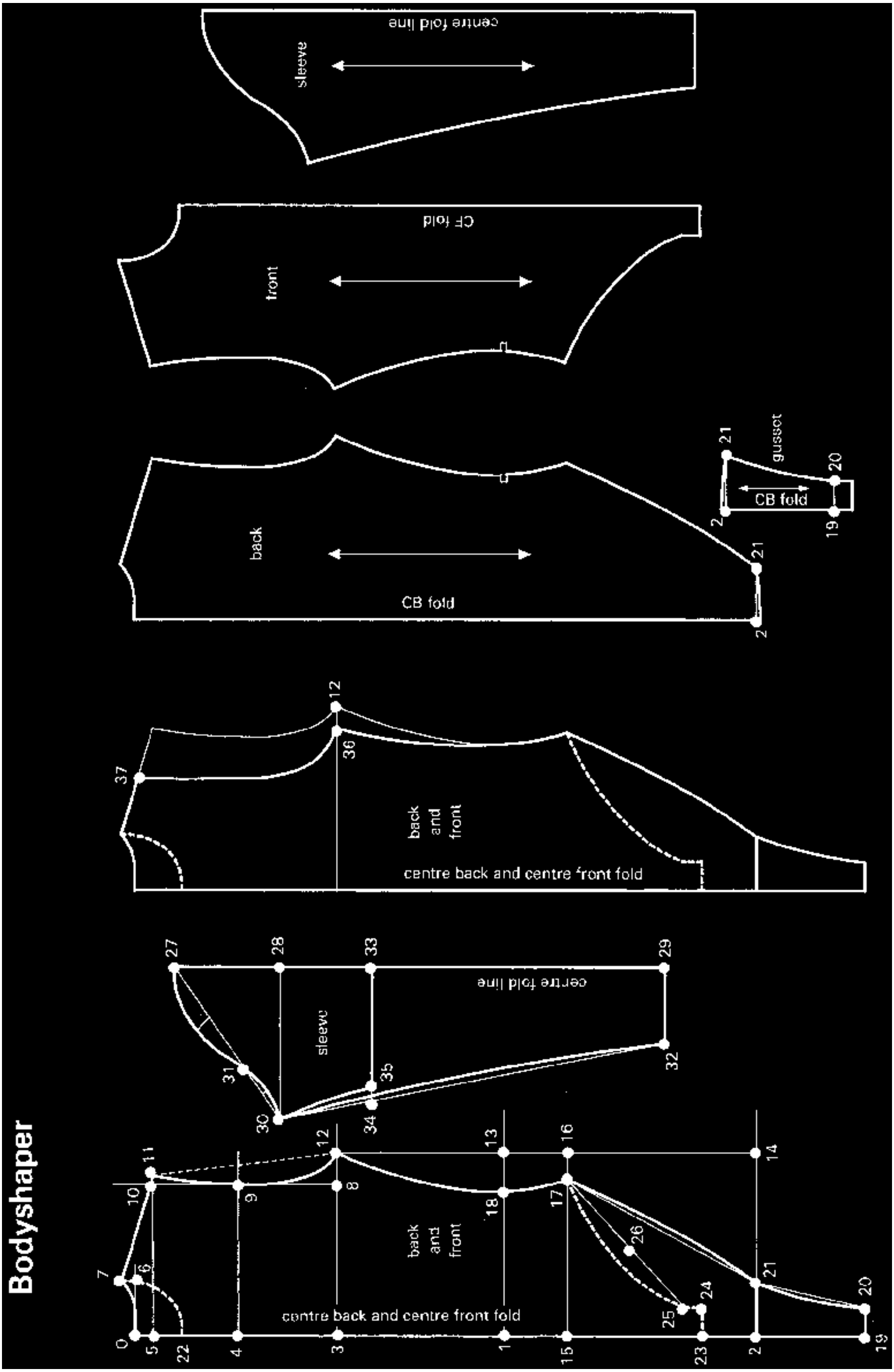
bra cup.

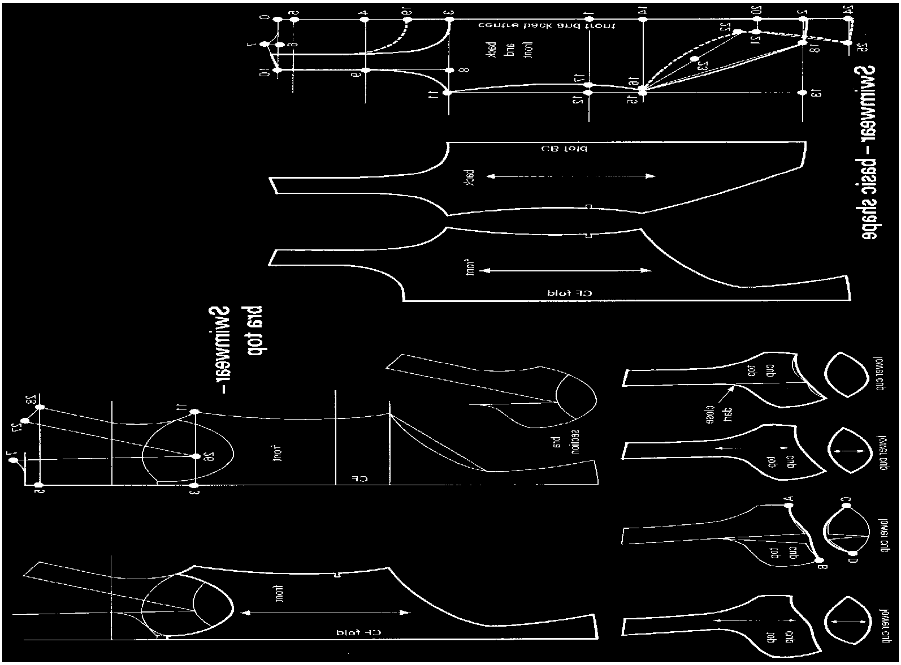
2–20 one sixteenth bust measurement plus 0.5 cm; Trace off top and bottom sections of the bra.

square across 3.5 cm to 21. Square up 2 cm to 22. Join Close the dart in the top section.

16–22.

Redraw bottom line and neckline if distorted.


Bodyshaper
0
5
22
4
3
1
15
23
2
19
7
6
10
11
9
8
12
13
16
14
18
17
26
21
20
25
24
back and front
centre back and centre front fold
27
28
33
29
31
30
34
35
32
sleeve
centre fold line
37
36
back and front
centre back and centre front fold
back
CB fold
21
2
gusset
21
20
CB fold
2
19
front
CF fold
sleeve
centre fold line


swimwear – basic shape
centre back and front
front and back
CB fold
back
front
CF fold
swimwear – bra top
CF
front
bra section
lower cup
top cup
dart close
A
B
C
D

170

Larger cup size

Lower section

Draw a vertical line through the lower cup from bust point on top edge the required amount (example shows 1.5 cm).

Raise curve of top edge 0.5 cm.

Top section

Open dart line at the lower edge the same amount as the lower cup plus 1 cm. Reshape lower edge as shown; ensure that the length A–B = C–D on the lower cup.

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PART THREE: SIZE AND FIT

12 Basic grading techniques

Grading patterns

172

Grading four sizes

172

Grading one size up – form cutting

172

Grading one size up – flat cutting

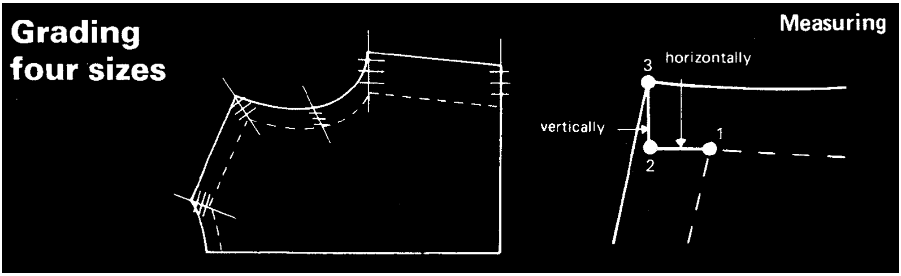
175

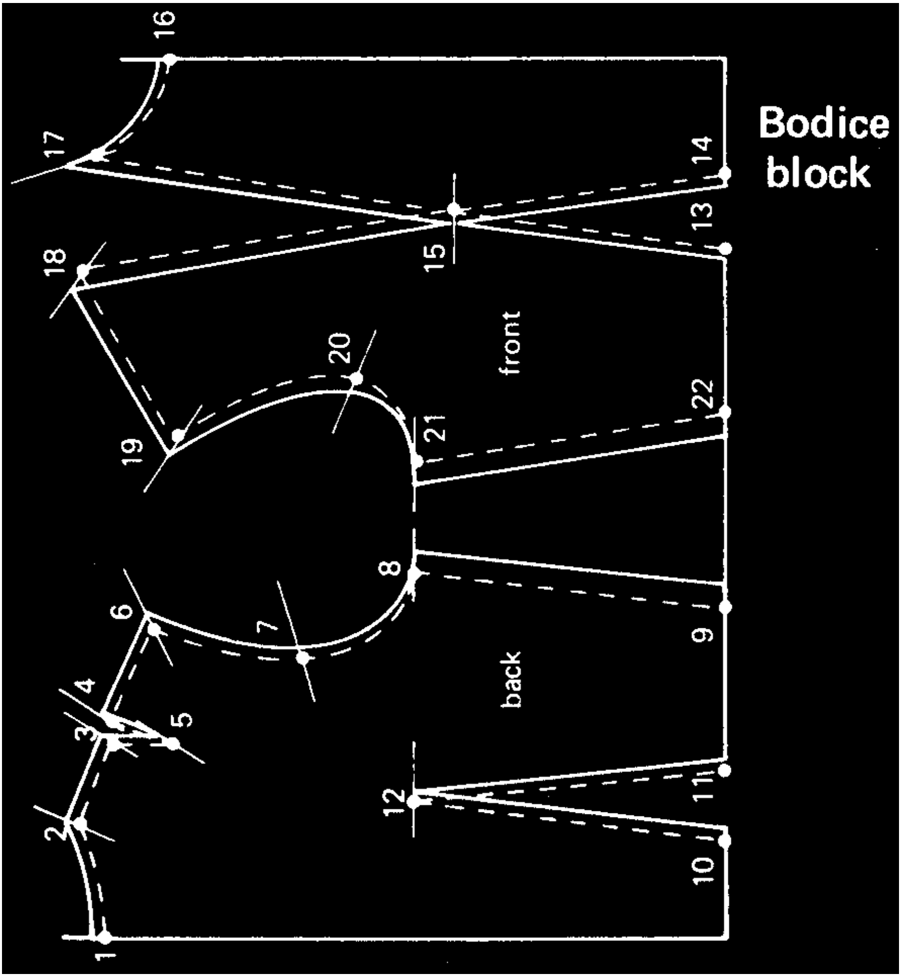
Special notes

Many students find grading a difficult subject. Therefore, as this is an introductory book to pattern cutting, examples are demonstrated using simple size charts.

Grading for *form cutting* in this chapter is based on the Body measurement chart for High-street fashion garments (code sizes **6–16**) on page 12. The chart has 4 cm intervals and an even grade between all sizes.

Grading for *flat cutting* in this chapter is based on the Body measurement chart for High-street fashion garments (sizes **XS**, **S**, **M**, **L**, **XL**) on page 12. The chart has 6 cm intervals and an even grade between all sizes.




Bodice block
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
front
back

172

Grading patterns

Pattern grading is a technique used to reproduce a

The method shown in this book is used in

pattern in other sizes. It must be done accurately;

computer grading; points for the next size up are

small errors unnoticed when one size is graded

established by measuring distances horizontally then

become difficulties when many sizes are required.

vertically. The new pattern outline is then drawn

An accurate method is to draft the smallest size and

between the points.

the largest size, then stop off the sizes between on

lines drawn through the basic points (see diagram).

Example – grading one size up (see

diagram)

Many manufacturers are now using computers to

From base 1 on the shoulder point, square across.

grade patterns, but it is useful for students to

Measure horizontally the required measurement;

understand the principle of how the data used is

mark point 2.

calculated. Once the basic principle is learnt, one can Square up; measure vertically the required understand any new method quickly. Manual

measurement to point 3.

methods usually 'shift' the whole pattern

Point 3 is the new shoulder point for the next

horizontally and then vertically.

size.

Grading one size up – *form cutting* (4 cm intervals) – 1

Body measurement chart for High-street fashion

garment code sizes 6–16, page 12.

The close fitting bodice block

Back

1 measure

4

mm

hor.

2 measure 4 mm hor. 2 mm vert.

3, 4, 5 measure 3.5 mm hor. 3 mm vert.

6 measure 3 mm hor. 4.5 mm vert.

7 measure 2 mm hor. 5 mm vert.

8, 9 measure

8.5

mm

vert.

10, 11, 12 measure

2.5

mm

vert.

Front

13, 14, 15 measure

4.5

mm

vert.

16 measure

2

mm

hor.

17 measure 4 mm hor. 2 mm vert.

18 measure 4 mm hor. 8 mm vert.

19 measure 3 mm hor. 11 mm vert.

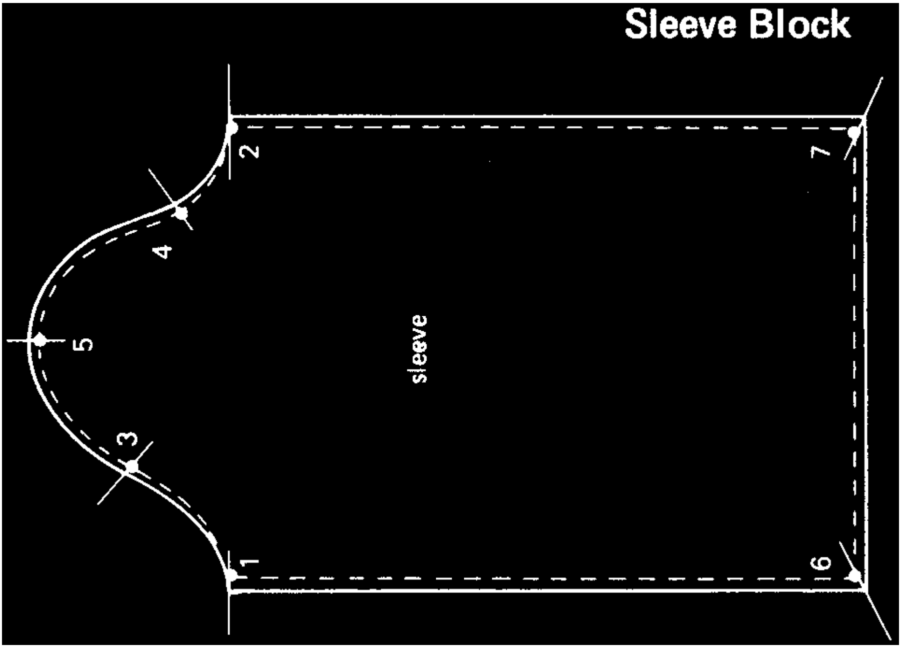
20 measure 1 mm hor. 8 mm vert.

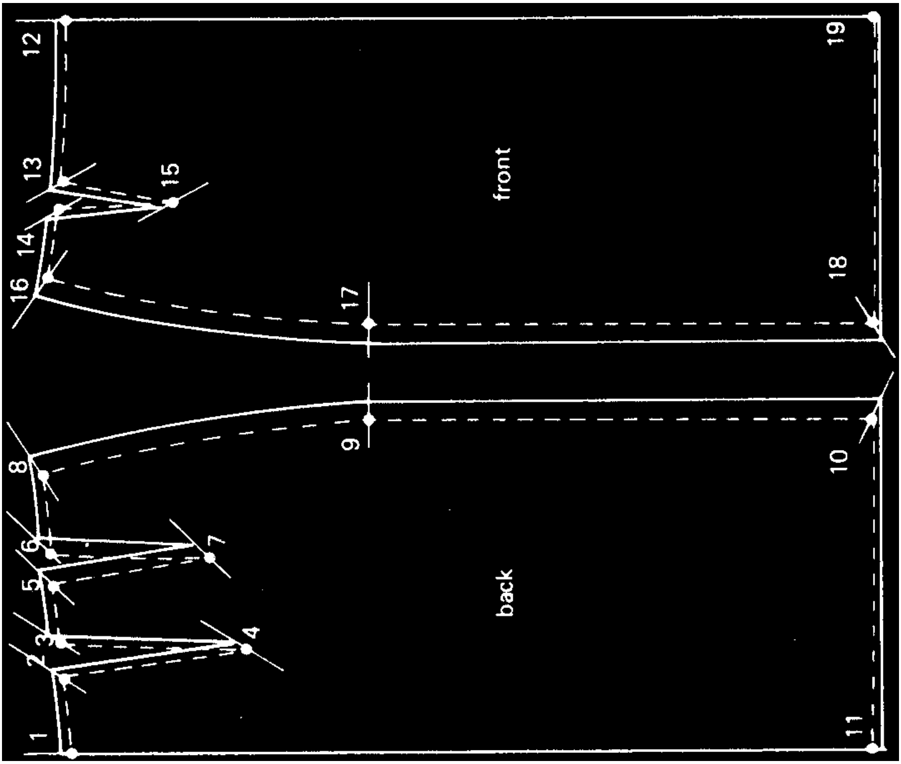
21, 22 measure

11.5

mm

vert.


Sleeve Block
2
7
4
5
sleeve
3
1
6


12
19
13
15
front
14
16
17
18
8
9
10
6
7
5
back
3
4
2
1
11

173

Grading one size up – *form cutting* (4 cm intervals) – 2

Body measurement chart for High-street fashion

Sleeve block

garments code sizes 6–16, page 12.

Sleeve block

Sleeve

1 measure

4

mm

vert.

2 measure

5

mm

vert.

3 measure 2 mm hor. 0.5 mm vert.

4 measure 1 mm hor. 0.5 mm vert.

5 measure

4

mm

hor.

6 measure 1 mm hor. 4 mm vert.

7 measure 1 mm hor. 5 mm vert.

Tailored skirt block

Tailored skirt block

Points 10, 11, 18, 19 are graded to knee

length, adjust as required.

Back

1 measure

3

mm

hor.

2, 3, 4 measure 3 mm hor. 3 mm vert.

5, 6, 7 measure 3 mm hor. 6 mm vert.

8 measure 3 mm hor. 10 mm vert.

9 measure

10

mm

vert.

10 measure 5 mm hor. 10 mm vert.

11 measure

5

mm

hor.

Front

12 measure

3

mm

hor.

13, 14, 15 measure 3 mm hor. 6 mm vert.

16 measure 3 mm hor. 10 mm vert.

17 measure

10

mm

vert.

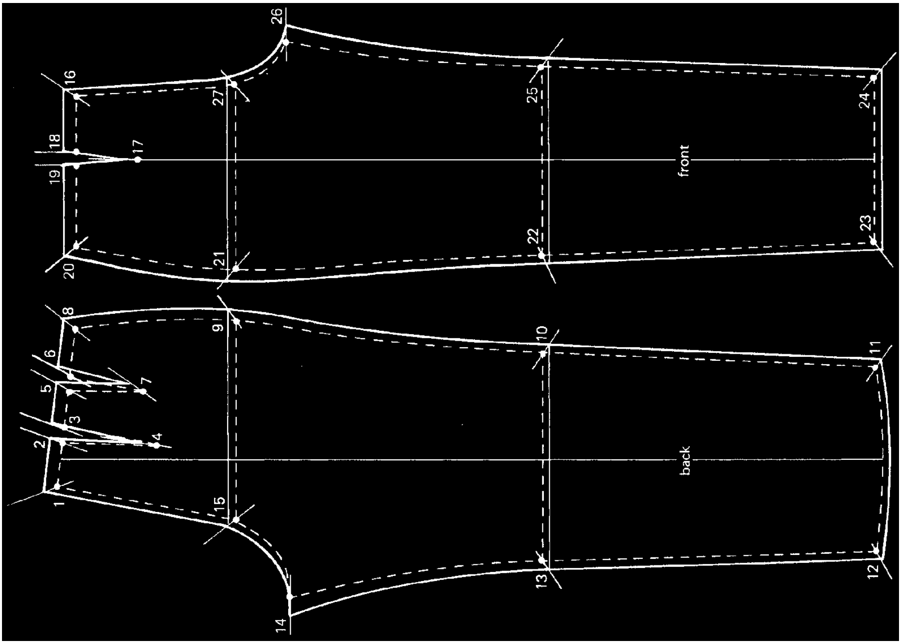
18 measure 5 mm hor. 10 mm vert.

19 measure

5

mm

hor.


26
16
27
25
24
18
17
19
front
22
23
20
21
8
9
10
11
6
5
7
3
4
2
back
1
15
13
12
14

174

Grading one size up – *form cutting* (4 cm intervals) – 3

Body measurement chart for High-street fashion garments code sizes 6–16, page 12.

The classic tailored trouser block

Front

16 measure 7 mm hor. 3 mm vert.

Back

17, 18, 19 measure 7 mm vert.

1 measure 7 mm hor. 3 mm vert.

20 measure 7 mm hor. 7 mm vert.

2, 3, 4 measure 7 mm hor. 1 mm vert.

21 measure 4 mm vert. 7 mm vert.

5, 6, 7 measure 7 mm hor. 4 mm vert.

22 measure 1.5 mm hor. 3 mm vert.

8 measure 7 mm hor. 7 mm vert.

23, 24 measure 3 mm hor. 2.5 mm vert.

9 measure 4 mm hor. 7 mm vert.

25 measure 1.5 mm hor. 3 mm vert.

10 measure 1.5 mm hor. 3 mm vert.

26 measure 6 mm vert.

11, 12 measure 3 mm hor. 2.5 mm vert.

27 measure 4 mm hor. 3 mm vert.

13 measure 1.5 mm hor. 3 mm vert.

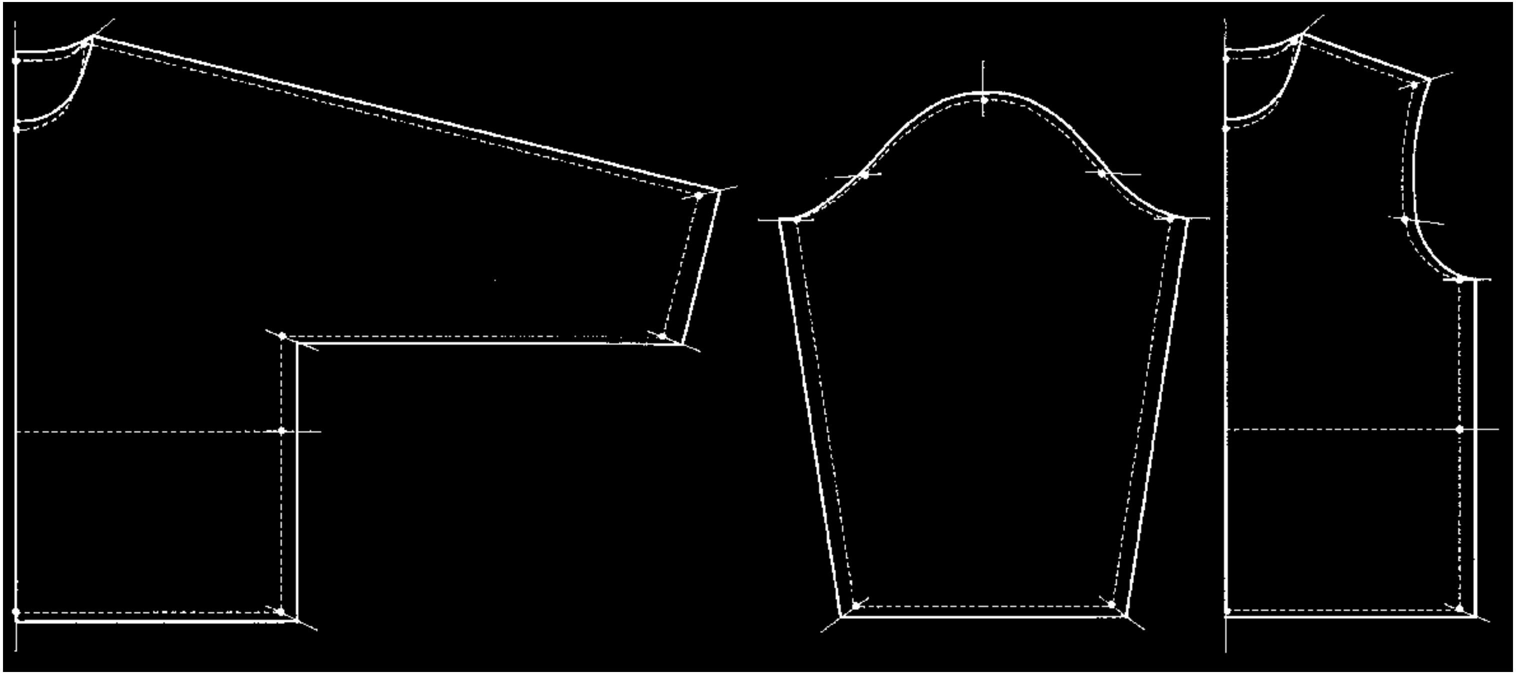
14 measure

8

mm

vert.

15 measure 4 mm hor. 3 mm vert.



Grading one size up – *flat cutting*

(6 cm intervals) – 1

6

5

7

Body measurement chart for High-street

3

fashion garment sizes XS, S, M, L, XL,

4

page 12.

Flat bodice blocks

2

Back and front

1 measure

6

mm

hor.

front and back

8

1

9

2 measure 6 mm hor. 3 mm vert.

3 measure 5.5 mm hor. 7.5 mm vert.

4 measure 2 mm hor. 9.5 mm vert.

5, 6 measure

15

mm

vert.

3

7 measure 4 mm hor. 15 mm vert.

8 measure

4

mm

hor.

2

4

9 measure

3

mm

hor.

Sleeve

1 measure

3

mm

hor.

2 measure 1 mm hor. 6.5 mm vert.

1

3 measure

10

mm

vert.

sleeve

4, 5 measure 7 mm hor. 6.5 mm vert.

6 measure

10

mm

vert.

7 measure 1 mm hor. 6.5 mm vert.

7

5

6

Flat kimono block

1 measure

6

mm

hor.

3

2 measure 6 mm hor. 3 mm vert.

4

3 measure 5.5 mm hor. 15 mm vert.

4 measure 1.5 mm hor. 13.5 mm vert.

5 measure 1.5 mm hor. 15 mm vert.

6 measure

15

mm

vert.

7 measure 4 mm hor. 15 mm vert.

8 measure

4

mm

hor.

9 measure

3

mm

hor.

5

6

7

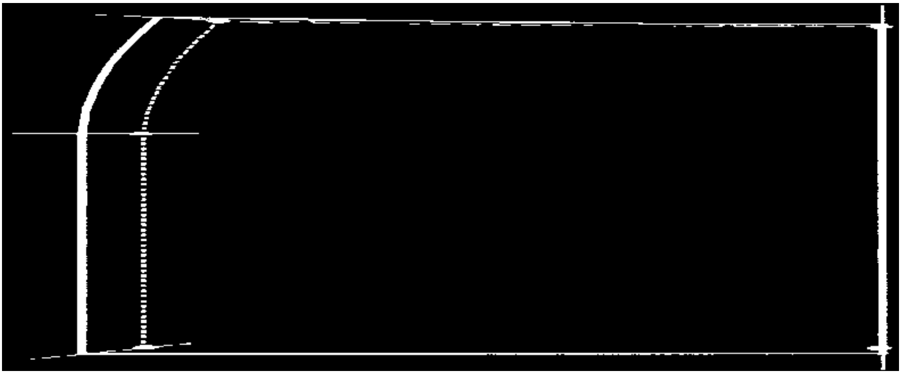
2

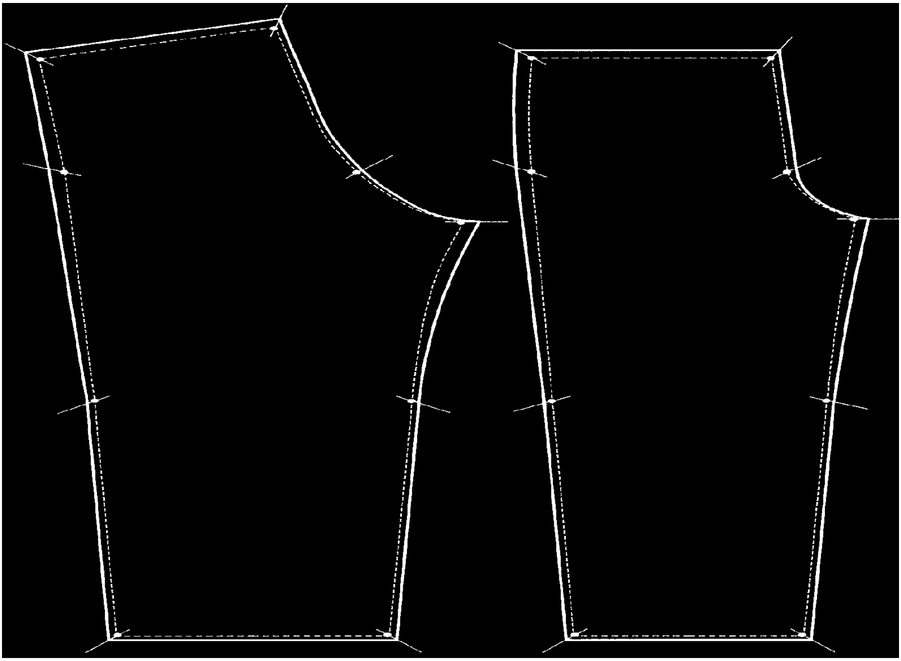
front and back

1

9

8





176

Grading one size up – *flat cutting* (6 cm intervals) – 2

Body measurement chart for High-street fashion

Flat and very flat skirt block

garment sizes XS, S, M, L, XL, page 12.

1 measure 4 mm hor.

2 measure 4 mm hor. 15 mm vert.

Flat trouser block

3 measure 15 mm vert.

Back

4 measure 7 mm hor. 15 mm vert.

1 measure 10 mm hor. 4 mm vert.

5 measure 7 mm hor.

2 measure 10 mm hor. 11 mm vert.

3 measure 6 mm hor. 11 mm vert.

4 measure 2.5 mm hor. 3 mm vert.

5, 6 measure 5 mm hor. 3 mm vert.

7 measure 2.5 mm hor. 3 mm vert.

8 measure

10

mm

vert.

9 measure 6 mm hor. 4 mm vert.

Front

1 measure 10 mm hor. 5 mm vert.

2 measure 10 mm hor. 10 mm vert.

3

4

2

3 measure 6 mm hor. 10 mm vert.

4 measure 2.5 mm hor. 3 mm vert.

5, 6 measure 5 mm hor. 3 mm vert.

7 measure 2.5 mm hor. 3 mm vert.

8 measure

8

mm

vert.

9 measure 6 mm hor. 5 mm vert.

front and back

1

5

2

3

4

5

1

back

9

6

7

8

2

3

4

5

front

1

9

6

7

8

177

PART THREE: SIZE AND FIT

13 Drafting blocks and fitting for individual figures

Drafting blocks for individual figures 178

Taking measurements

178

Making toiles

180

Pattern alterations for fitting figure

problems 181

178

Drafting blocks for individual figures

Drafting blocks for an individual figure is a simple Copy the size chart shown below. Fill in the operation. Use the instructions for the basic blocks

measurements shown in normal type from the size chart (Chapter 1) but use personal measurements instead for standard body measurements on page 13. For a bust of the standard body size chart.

size of 103.5 cm use those required for a size 20. All Take the bust measurement. Unless this measurements shown in bold type are those taken from

measurement is very large in proportion to the rest

the individual figure and then written on the chart.

of the figure, the bust measurement determines the

It is a good idea to list the standard measurements

drafting size. Example bust 104 cm = size 20.

at the side to compare them. If there are wide

Note For a very large bust or for a ‘dowager differences, the figure should be remeasured at these hump' back see page 186 before beginning the points and checked to see if it is in fact much wider draft.

or narrower than a normal figure.

	Personal measurements	**Standard measurements**	**Comments on figure**
1. Bust	**103.5**	104	nearest size
2. Waist	**90**	88	larger waist
2a. Low waist	100	98	larger low waist
3. Hips	**114**	112	larger hips

4. Back width

38.4

38.4

5. Chest

37.2

37.2

6. Shoulder

13.6

13.25

wider shoulders

7. Neck size

41

41

8. Dart

9.4

9.4

9. Top arm

32.2

33.2

slimmer arm

10. Wrist

17.5

18

slimmer wrist

11. Ankle

25.9

26

slimmer ankle

12. High ankle

22.9

23

13. Nape to waist

43.5

42.6

longer back waist meas.

14. Front shoulder

46

44.1

longer front waist meas.

to waist

15. Armscye

depth

23.5

22.6

16. Skirt length

71

finished skirt length

17. Waist

to

hip

21.8

21.8

18. Waist to floor

110

108

extra length

19. Body rise

32.5

30.8

longer body rise

20. Sleeve length

61.5

60.25

longer arm

Extra measurements (garments): these are standard measurements (see page 13).

Taking measurements

For extra guidance use the following instructions

2a Low waist Take the low waist measurement and the diagram opposite.

6 cm below the natural waistline.

1 Bust Measure the figure at the fullest point of **3 Hips** Measure the widest part of the hips the bust, do not allow the tape to fall at the back.

approx. 21 cm from the waistline. For hips that differ **2 Waist** Take this measurement round the waist, from standard measurement (hips 5 cm larger than make sure it is comfortable.

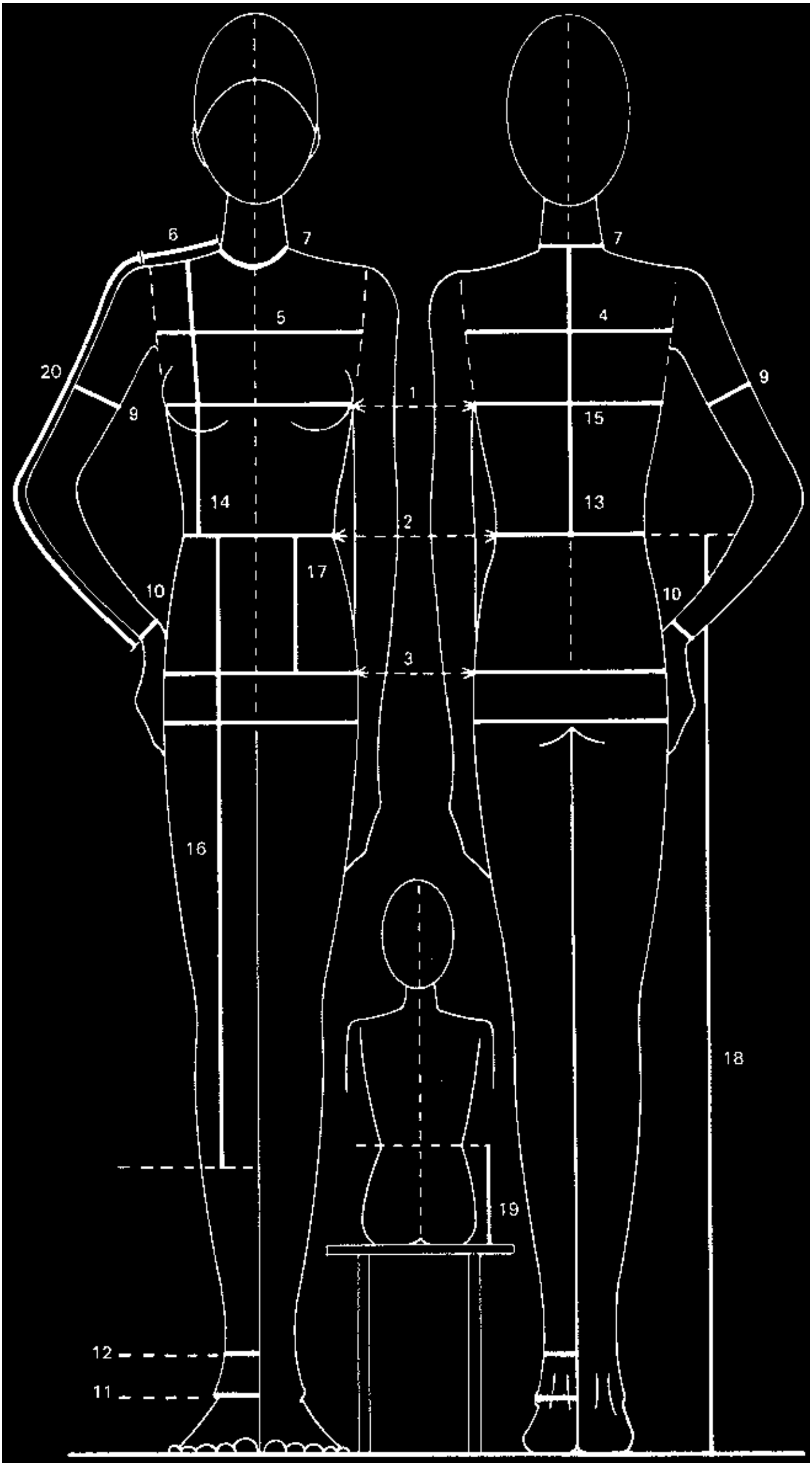
bust) see page 188 for dress blocks.

After taking the waist measurement tie a string

4 Back width Measure the back width 15 cm firmly round the waist: this allows the vertical down from the neck bone at the centre back.

measurements to be taken accurately.

Measure from armscye to armscye.



5 Chest Measure the chest 7 cm down from the neck point at the centre front (armscye to armscye).

6 Shoulder Measure from the neck to the shoulder bone.

7 Neck size Measure the base of neck touching front collar bone.

8 Dart Standard measurement.

9 Top arm The arm must be bent, measure the biceps.

10 Wrist Take the wrist measurement with slight ease.

11 Ankle Measure around the ankle over ankle bone.

12 High ankle Measure around leg just above the ankle.

13 Nape to waist Measure from the neck bone at the centre back to the string tied around the waist.

14 Front shoulder to waist Measure from the centre of the front shoulder over the bust point to waist.

15 Armscye depth Standard

measurement.

16 Skirt length Measure the skirt length from the string at the waist down to the required hem length.

Note Measure from the waist to

floor at the back and front to check

that the balance of the figure is even.

17 Waist to hip Standard measurement.

18 Waist to floor Measure from

waist to floor at the centre back.

19 Body rise The subject should sit on a hard chair. Take the measurement at the side from the

waist to the chair.

20 Sleeve length Place the hand on hip so that the arm is bent.

Measure from the shoulder bone

over the elbow to the wristbone

above the little finger.

The list of individual measurements

should be carefully checked against

the list of standard measurements

and any great deviation accounted

for. The blocks can then be drafted

using the person's *individual*

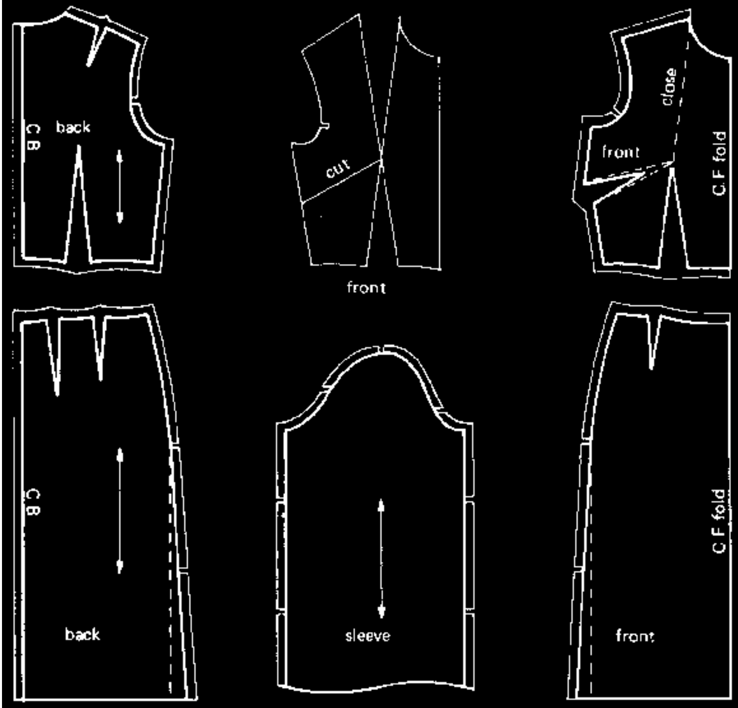
measurements. If a figure fault is

very pronounced consult the

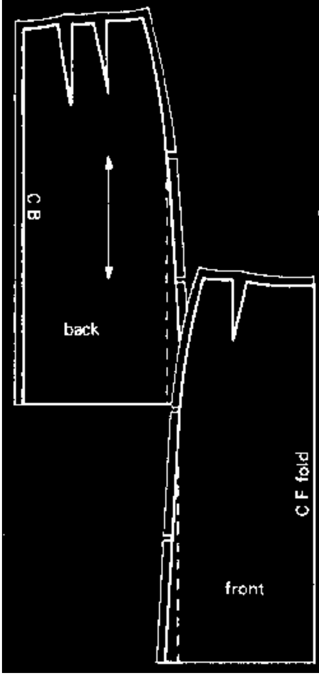
following section and adapt the

block before making the toile.

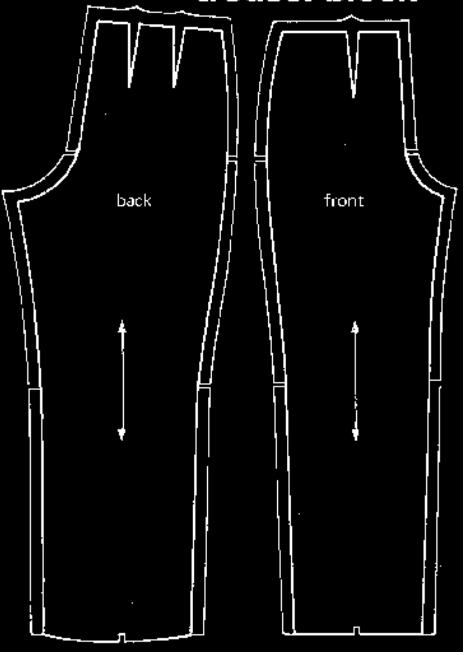
The two-piece dress block


C B
back
cut
front
close
front
C F fold
C B
back
sleeve
C F fold
front

The tailored skirt block


C B
back
C F fold
front

Classic tailored trouser block



Making toiles

The basic blocks must fit perfectly, therefore it is necessary to make them up into calico toiles to check the fit. Examples are given for making up the toiles of:

(1) The two-piece dress block with the straight sleeve.

(2) The tailored skirt block (page 80).

(3) The classic tailored trouser block (page 100).

The two-piece dress block

Draft the close fitting bodice and sleeve block. Follow the instructions on pages 16, 24 and 30 to produce the two-piece dress block.

Adjust waist darting if your waist differs from the standard measurements. If hips differ, see page 188. Transfer the bust dart to the underarm to make the fitting of the shoulders easier; draw a line from the underarm seam to the bust point. Cut along this line.

Close the shoulder dart; this will open the new underarm dart.

Shorten the dart by 2.5 cm at the bust point.

Cut up the side seam of the skirt. Add 2.5 cm flare to side seam at the hem, join to hip point.

The tailored skirt block

For separate skirts not attached to bodices the tailored skirt provides a better fit, as it gives more shaping to the buttocks. It is useful to have a basic skirt block.

Draft the block (page 80).

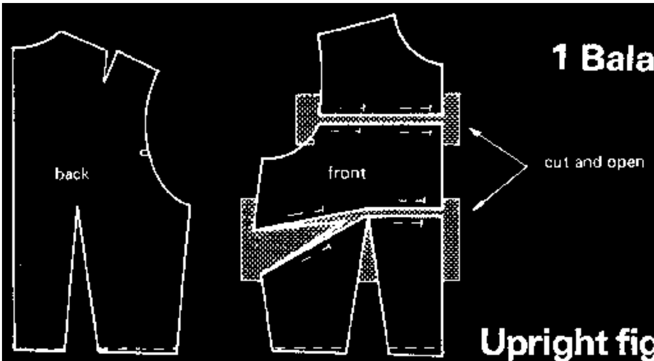
Separate at the side seam. Add 2.5 cm flare to the side seam at the hem of the skirt; join to hip point.

Classic tailored trouser block

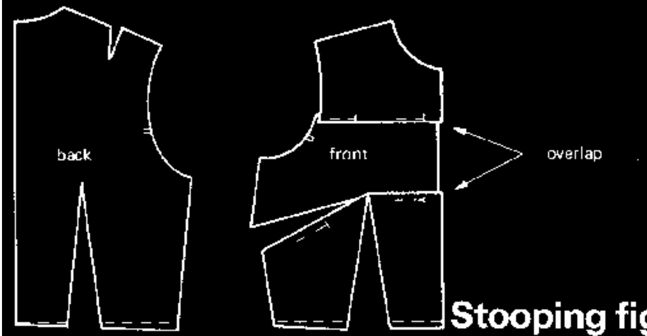
Draft the classic tailored trouser block (page 100).

Note Cut out the blocks as shown in diagrams; add seam allowance of 1.5 cm (no seam allowance at neck or hem of skirt, trousers and sleeves). Tack tape to waist of trousers and skirt.

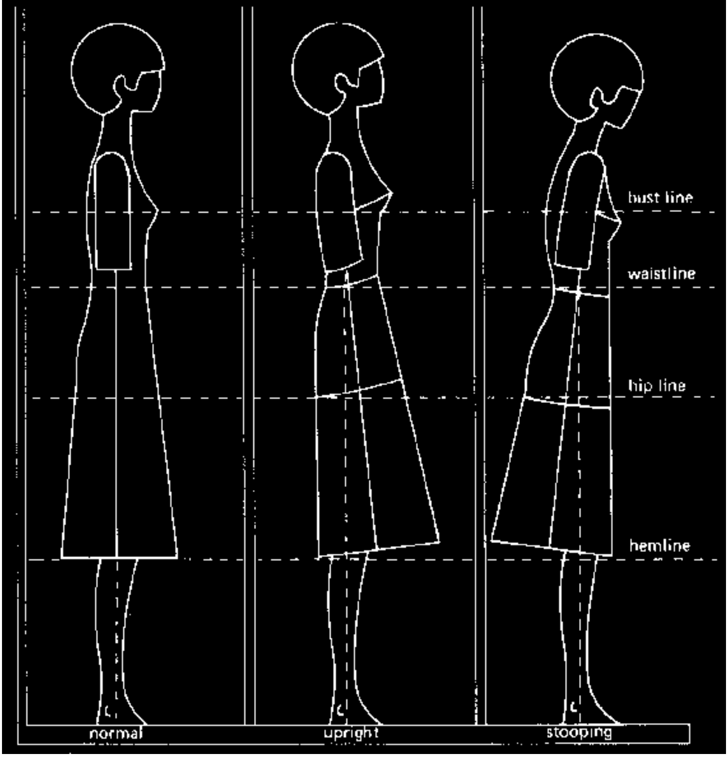
1 Balance


back
front
cut and open

Upright figure


back
front
overlap

Stooping figure


bust line
waistline
hip line
hemline
normal
upright
stooping

Pattern alterations for fitting figure problems

If the block has been drafted to personal measurements, it will provide a good fit unless there are special figure faults. Sometimes they are apparent and the block can be adapted before the toile is made up. Often they do not show until the toile is seen on the figure. The faults are then marked at fitting stage and the block is corrected.

Fitting the toile

The person being fitted should be wearing the correct undergarments and shoes. She should stand in her normal relaxed position. Pin any openings.

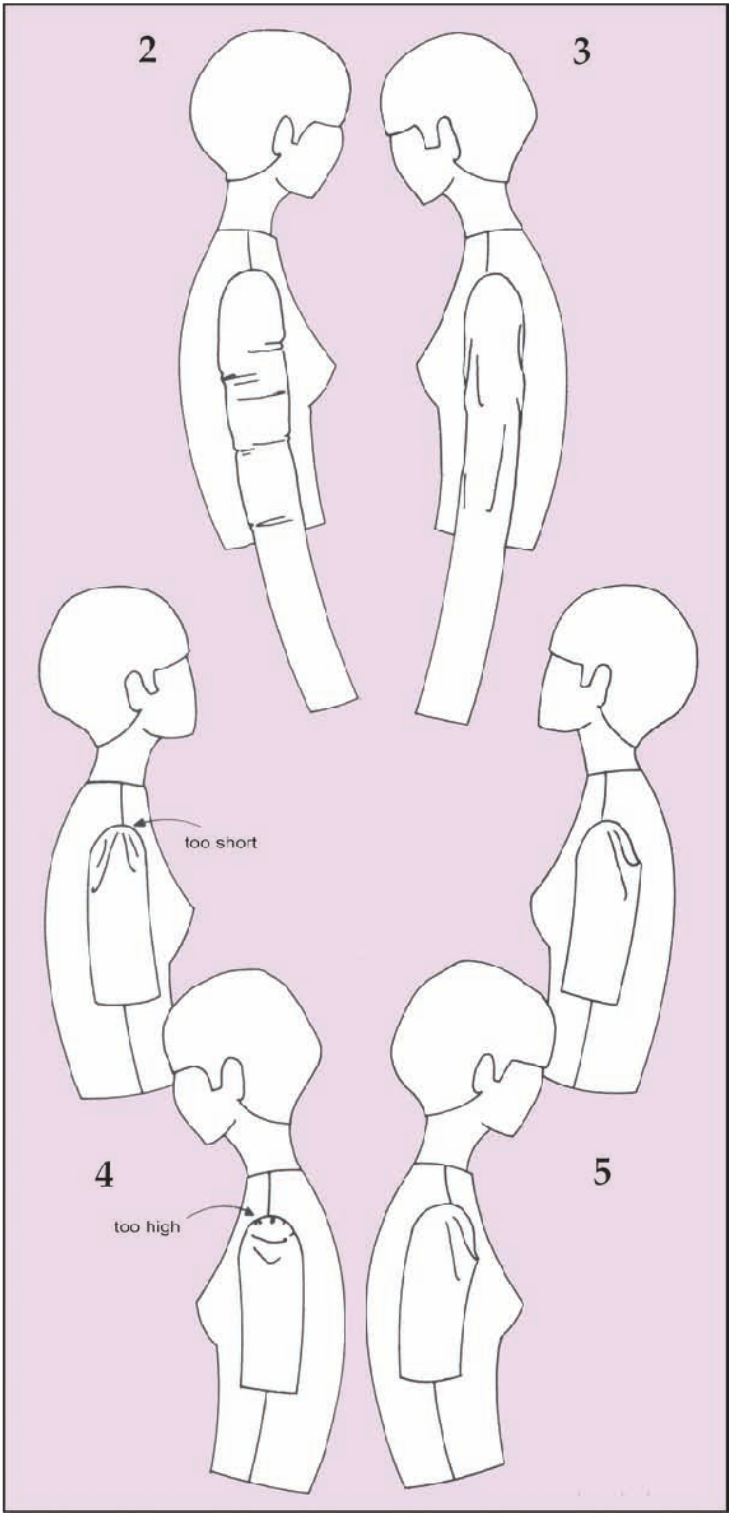
Problems of balance

1 Balance The person being fitted should stand a distance away from the fitter to allow a general view. She should turn slowly. Note any obvious faults. Study the side seam; although the person may have an average figure her stance may cause the toile to swing and distort the side seam. See diagram opposite.

Note Make sure that it is the posture of the figure that is causing the distortion and not the figure protuberances, *e.g.* large bust, as this requires a different remedy.

Upright figure Cut across front block at bust and chest; open amount needed to bring front waistline down to its correct position. The alteration may be needed at chest or bust only. Trace round the new shape. Side bust dart will widen so that the side seams are of equal length.

Stooping figure Cut across the front block as explained above; overlap the amount to be removed. Trace round the new shape. The side bust dart will become smaller so that the side seams are of equal length.


2
3
too short
4
too high
5

Sleeves – measurement problems

2 Large arm The sleeve pulls tightly across arm and wrinkles.

Cut block up centre line and across the sleeve head above back balance point.

Open required amount as in diagram. Redraw the sleeve head.

This increases the sleeve head measurement so the armscye is lowered approx. 1 cm.

Re-mark the balance points to match sleeve.

Note If top arm only is too tight, narrow the side seams to wrist after alteration.

3 Slim arm The sleeve sags and is shapeless.

Cut block up centre line and overlap required amount as in diagram.

Redraw the sleeve head. This reduces the sleeve head measurement so the armscye is raised approx. 1 cm. Re-mark balance points to match sleeve.

Sleeves – figure problems

4 Sleeve head too short Diagonal lines pull from shoulder point and there is too little ease in sleeve head. Slash across sleeve head and insert the required amount. This will give the ease required to sleeve head.

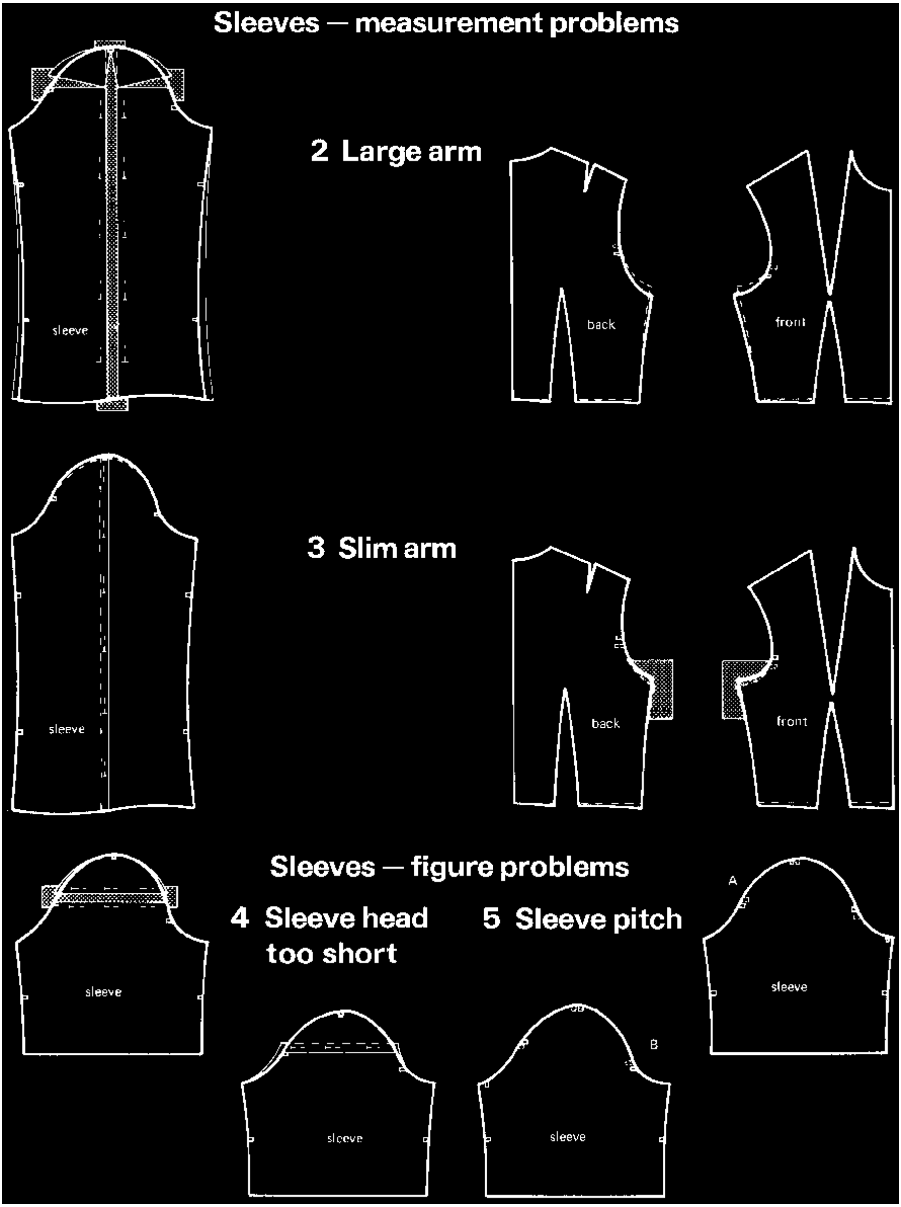
Sleeve head too high Too much ease in the sleeve head, which sags. Slash across sleeve head and overlap to reduce sleeve head.

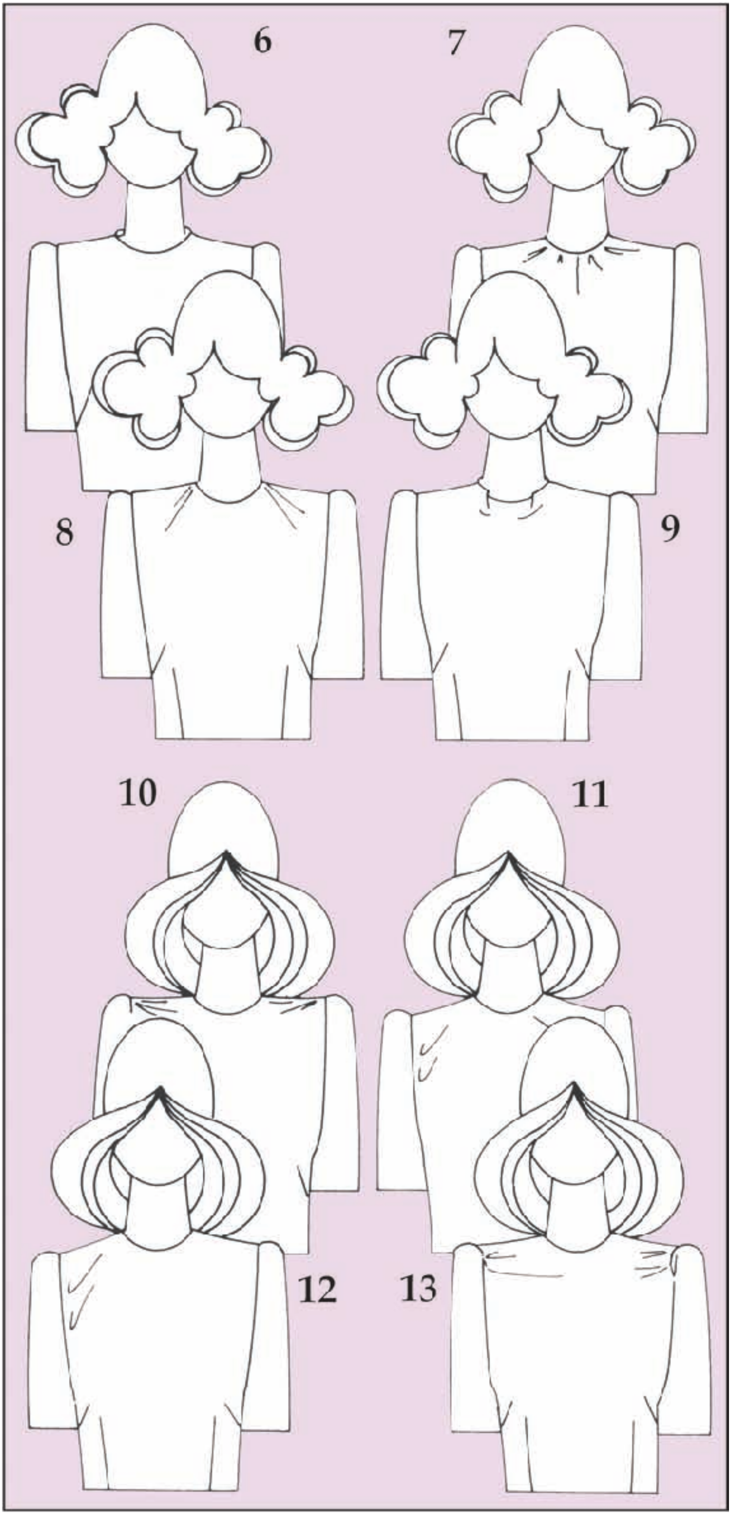
5 Sleeve pitch The sleeve can drag to the left or to the right. Remove sleeve from garment and pin at the shoulder point so that the sleeve hangs correctly.

Re-mark the balance points on the sleeve.

This often means the underarm

seams move out of line. If so, mark a balance point on sleeve to match to underarm.


Sleeves — measurement problems
sleeve
2 Large arm
back
front
sleeve
3 Slim arm
back
front
Sleeves — figure problems
sleeve
4 Sleeve head too short
sleeve
5 Sleeve pitch
sleeve
B
A
sleeve


6
7
8
9
10
11
12
13

Necklines – figure problems

6 Wide neckline Neckline

sits

too far away from the natural

neckline.

Raise the back and front neckline

of block as required.

7 Tight neckline Neckline

grips

the neck tightly and wrinkles.

Lower the front and back neckline

of the block the amount required.

8 Back neck too tight Neckline drags to the back causing diagonal wrinkles pulling from the neck.

Widen back neck; add same

amount to outer edge of shoulder

so that shoulder measurement

remains the same.

9 Front neck too loose Neckline is too full at the front.

Lower the shoulder line slightly at

the neck point and fill in the front

neck slightly as in diagram.

Take the same amount from the

outer edge of shoulder so that

shoulder measurement stays the same.

Shoulders – figure problems

10 Square shoulders Wrinkles pull from outer shoulder.

Slash armscye to neck point as in diagram and open required amount.

Raise underarm so that the armscye measurement stays the same, raise balance marks.

If shoulders are well developed keep original armscye and raise sleeve head (ref. 4 page 182).

11 Sloping shoulders Sag lines appear at the sides of armscyes.

Slash armscye to neck point as in diagram; overlap required amount.

Lower underarm so that the armscye measurement remains the same, lower balance marks.

12 Uneven shoulders Alter one

side of garment only.

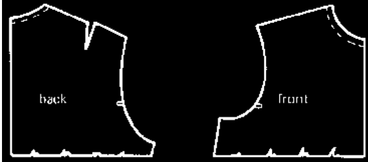
13 Prominent front shoulders Garment pulls across the prominent front shoulder bones.

Slash armscye to neck point as in diagram; open required amount.

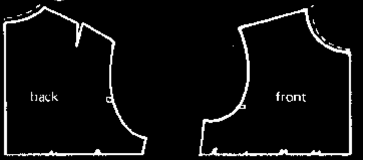
Raise head of front sleeve slightly.

Necklines — figure problems

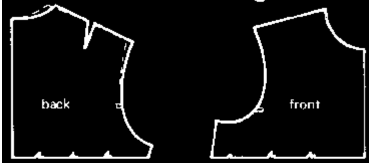
6 Wide neckline



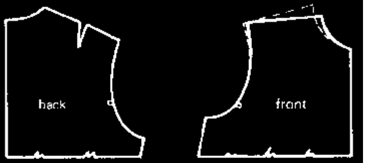
7 Tight neckline



8 Back neck too tight

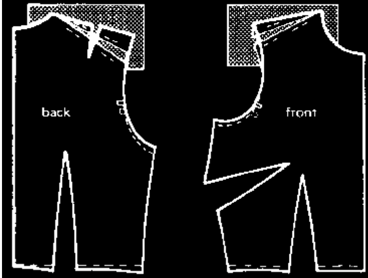


9 Front neck too loose

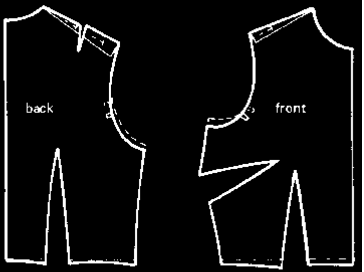


Shoulders — figure problems

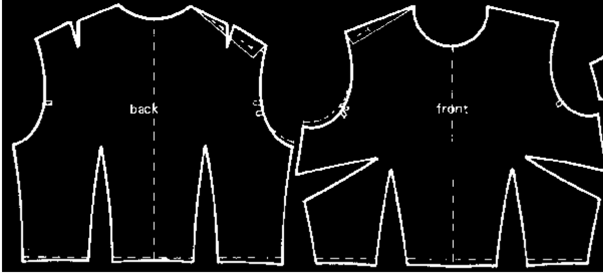
10 Square shoulders



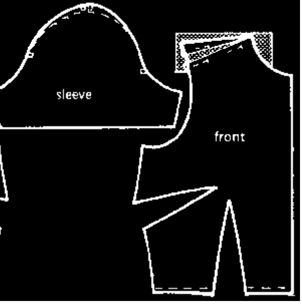
11 Sloping shoulders

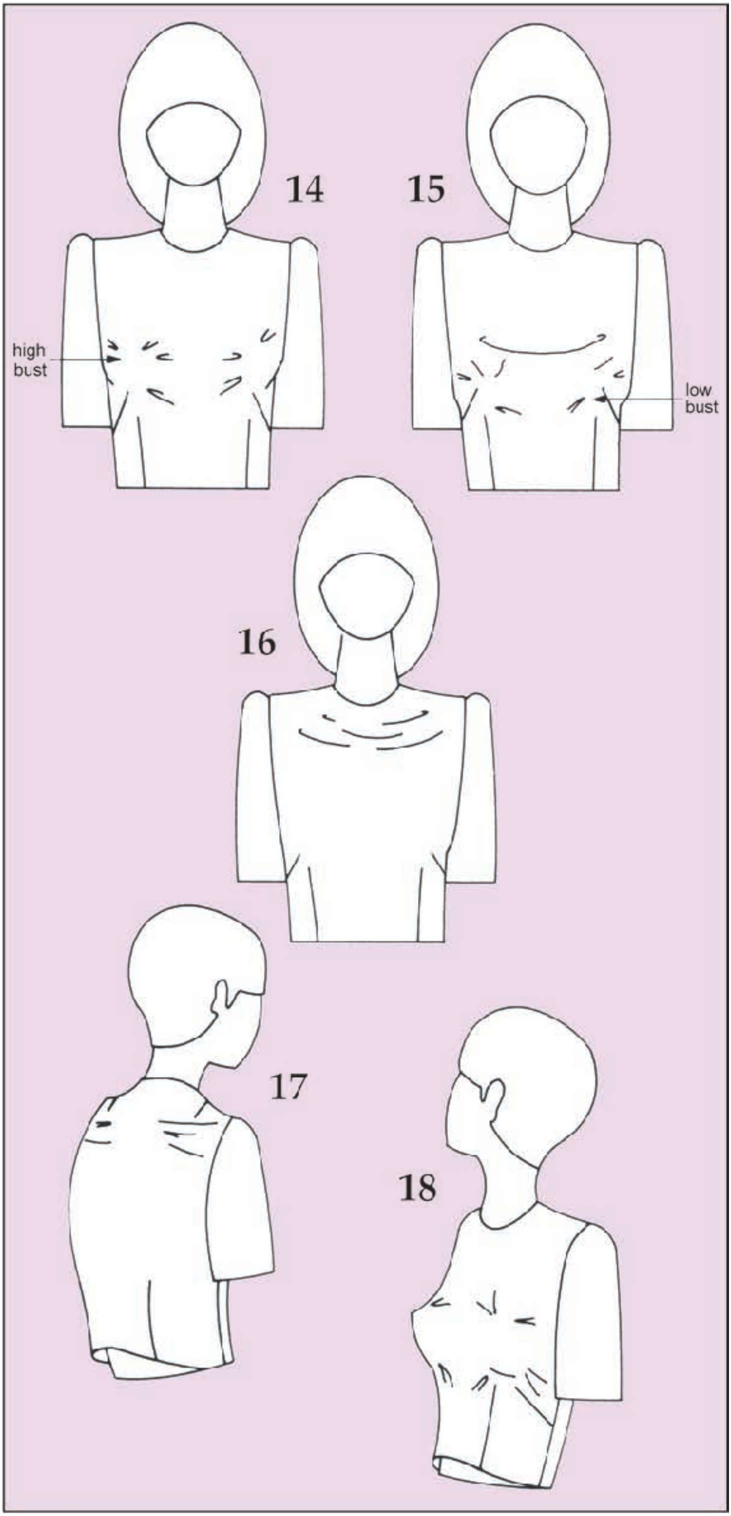


12 Uneven shoulders



13 Prominent front shoulders


sleeve
front


14
15
high bust
low bust
16
17
18

Bodice – figure problems

Most measurements should be correct as the block was drafted to individual measurements. The darting will have to be adjusted on the dress block if waist size differs from the standard.

14 High bust Strain and wrinkles show across high bust line.

Mark dart point at the higher level required, redraw dart to this point.

15 Low bust Fabric sags on normal bust line and pulls at dart point.

Mark dart point at lower level required and redraw dart to this point.

16 Hollow chest The fabric sags across the chest area.

Determine the amount to be removed. Lower front neck and shoulder point this amount.

Redraw neck line.

Join new shoulder point to outer shoulder with line.

17 Dowager hump A definite hump on the back pulls the fabric across the high back line; bodice rises up at the back. If the rest of the figure is normal, draft block to a standard back length and make the special alteration later.

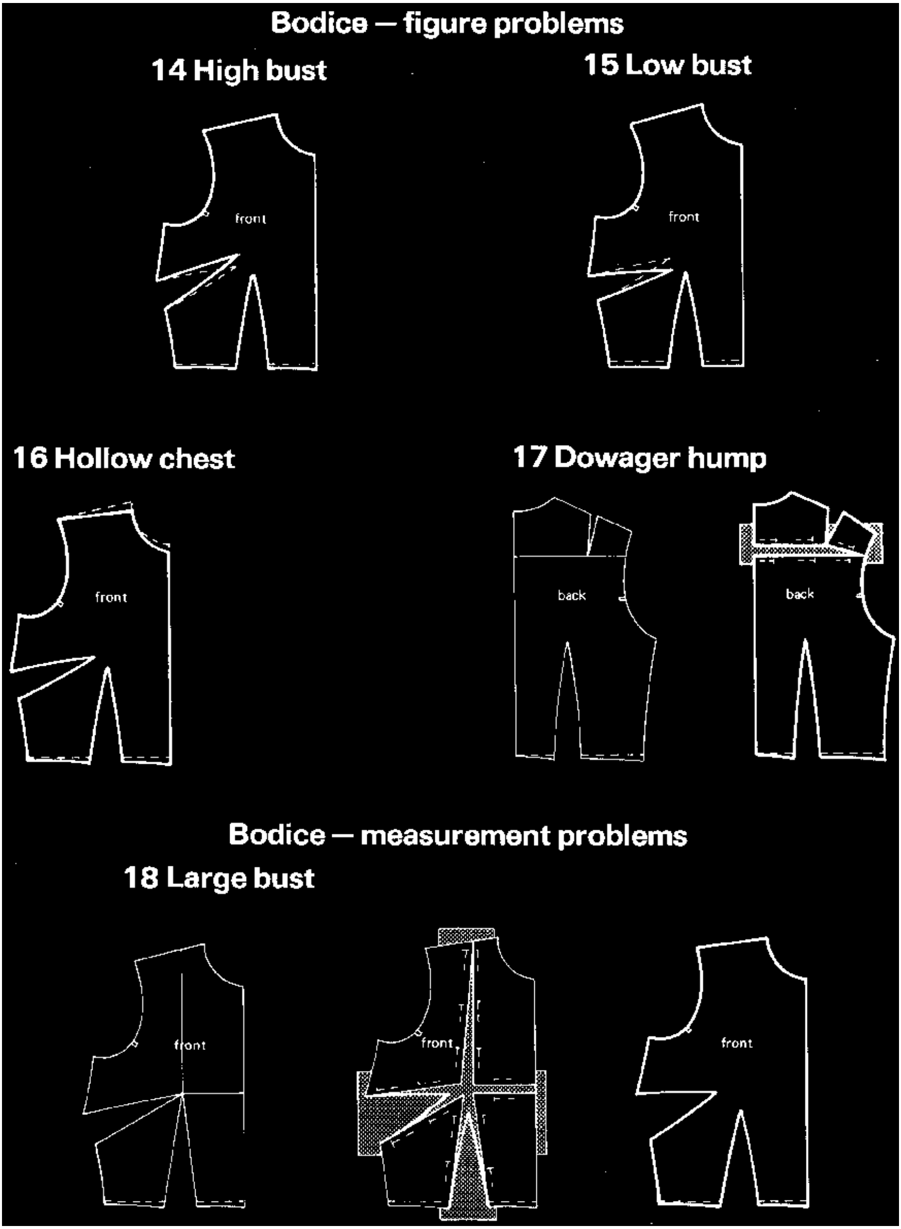
Slash across the high back line, open up the amount required.

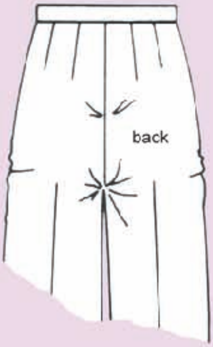
Straighten back seam to a vertical position, this will make a wider shoulder dart. Trace round pattern.

Bodice – measurement problems

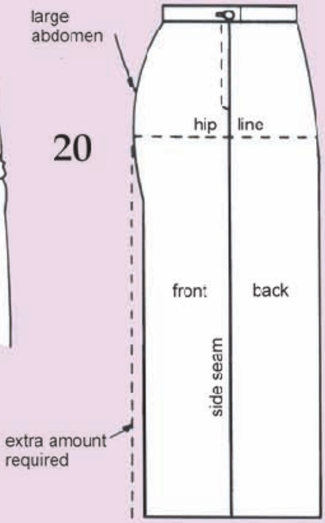
18 Large bust Fabric pulls across bust line and rises up at centre front. If figure is a basic smaller size except for large bust, draft a size smaller, then make alteration.

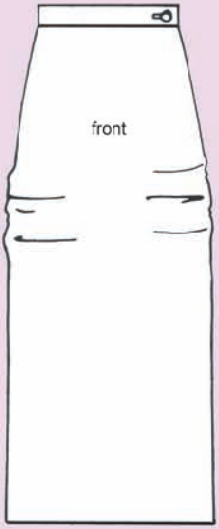
Slash bodice vertically and horizontally; open the amount required. This will enlarge bust and waist darts.


Bodice — figure problems
14 High bust
front
15 Low bust
front
16 Hollow chest
front
17 Dowager hump
back
back
Bodice — measurement problems
18 Large bust
front
front
front

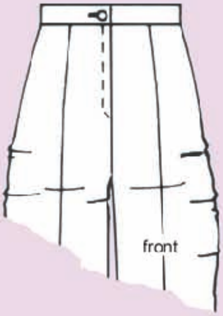

back

20

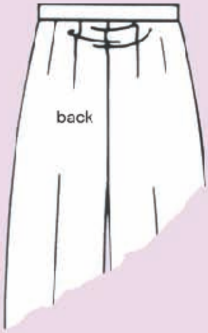

large
abdomen
hip line
front
back
side seam
extra amount
required

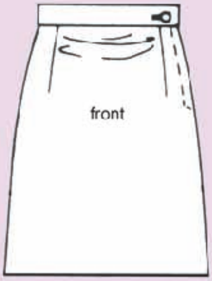

front

21


front

22


back


front

Skirts – trousers – dress blocks – measurement problems

Hips and waist sizes should be correct as they are drafted to individual measurements *except* the standard hip measurements and waist shaping on the dress block used for dresses and jackets.

19 Dress blocks

Waist darts: adjust darts to measurements required keeping the shaping even.

Hips larger or smaller than standard: cut up the side seam of the dress block, work out the difference between your hips and the standard hips for your bust size.

Add or subtract one quarter the difference to back block and one quarter the difference to front block from hipline to hemline. Shape in to meet waist point.

Note On designs where the pattern has no side seam, complete the design then distribute the differences evenly on the panel lines.

20 Large buttocks or abdomen Garments pull across the figure, drag at the crutch in trousers, or a skirt hem will rise at centre back or centre front. Although hip size is correct the garment may distort because the shape of the figure is uneven.

Add required length to the centre back or centre front waistline and at crutch on trousers. (Measure centre back to centre front between legs.)

If the garment still distorts, extra width can be inserted by slashing the pattern vertically and opening as shown. This will give a larger hip measurement, but an easier fitting garment is better for an obvious figure fault.

Note Also see 'Ease in the back crutch', page 132.

Skirts and trousers – figure problems

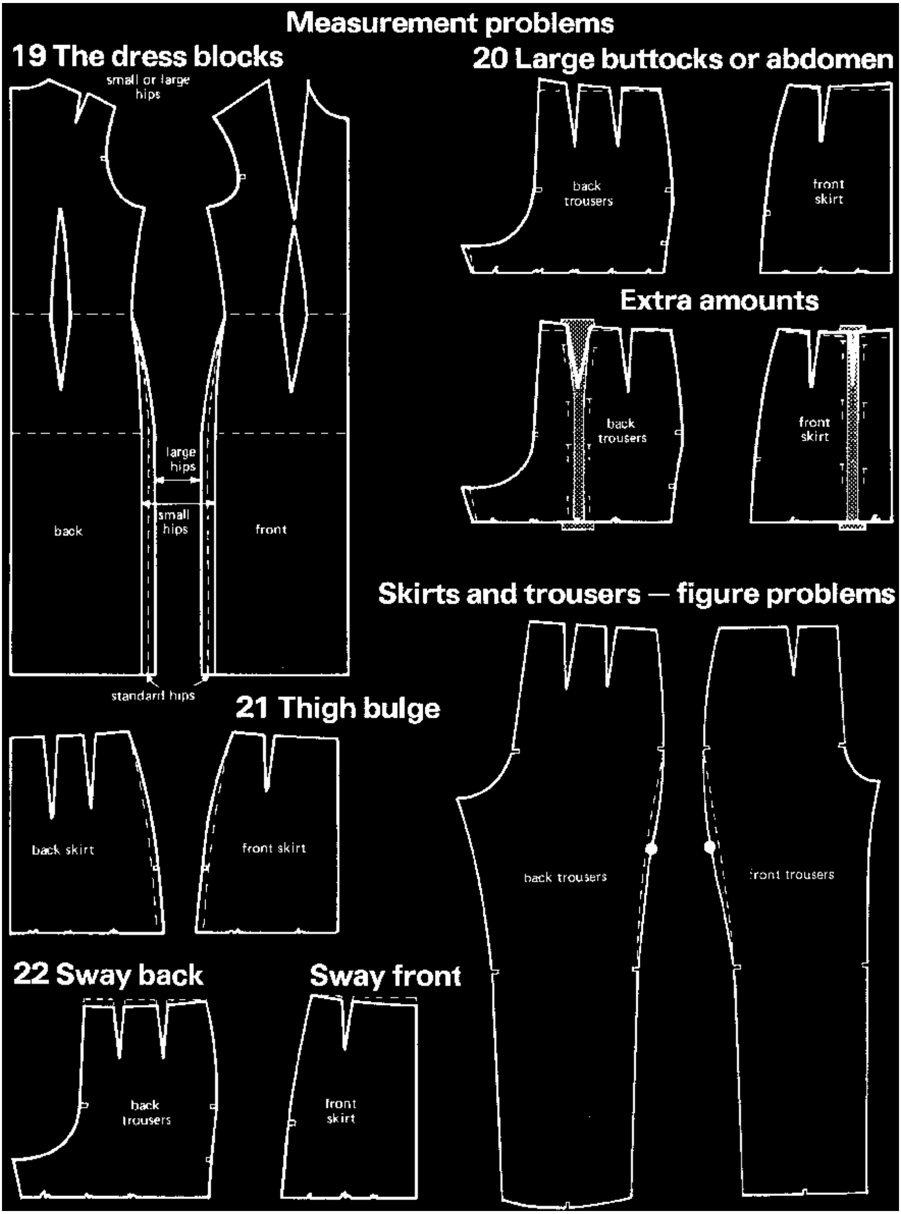
21 Thigh bulge Trousers or skirt pull across the thigh line.

Skirt: add required amount to side seam from thigh to hem, shape the line to touch waistline at normal point.

Trousers: add required amount to thighs at point 1. Draw a line from waist through point 1 to touch knee point.

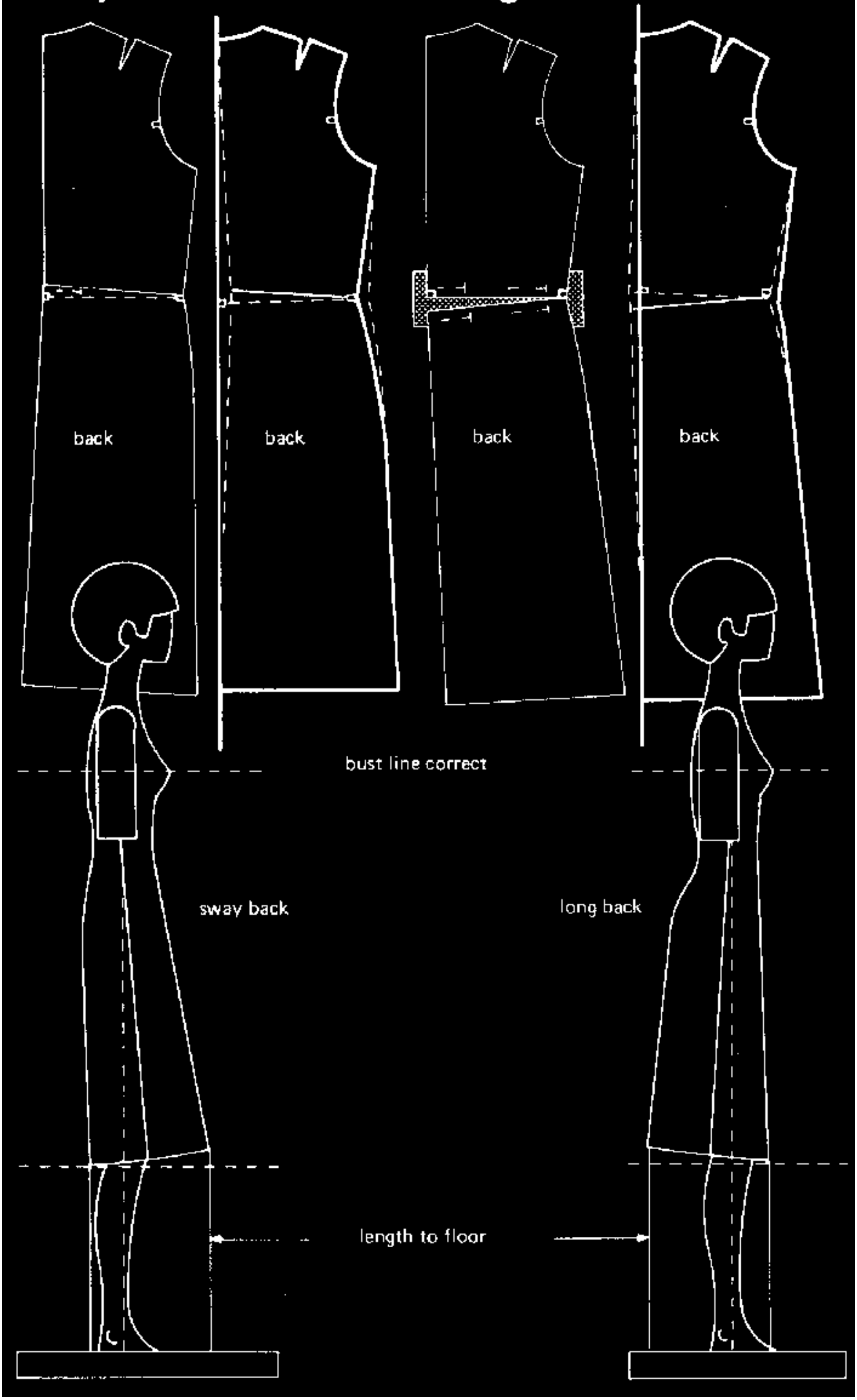
22 Sway back or front Trousers or skirt sag just below waist.

Reduce the 'waist to hip' length the required amount at centre back or centre front.


Measurement problems
19 The dress blocks
small or large hips
large hips
small hips
back
front
standard hips
20 Large buttocks or abdomen
back trousers
front skirt
Extra amounts
back trousers
front skirt
Skirts and trousers — figure problems
back trousers
front trousers
21 Thigh bulge
back skirt
front skirt
22 Sway back
back trousers
Sway front
front skirt

Sway back

Long back


back
back
back
back
bust line correct
sway back
long back
length to floor

Fitting one-piece dresses and jackets

Dresses and jackets without a seam at the waistline sometimes require a special alteration. This is when the figure has a sway back, or conversely a long back length in the centre area of the body between bust and hips.

Sway back The dress or jacket will swing into the back of the figure.

Correction: measure front and back lengths to the floor to find out how much the back must be raised.

Cut the pattern across the waistline and overlap the amount to be removed.

Draw a vertical line on a new piece of paper; place neck and hem of altered pattern to this line. Trace round pattern.

Reshape the side seam the same amount that is added by the distortion at the centre back seam.

Long back The dress or jacket will swing away from the back of the figure.

Correction: measure front and back lengths to the floor to find out how much must be inserted into back length.

Cut pattern at the waistline and open the required amount.

(Place a piece of paper underneath the pattern and pin to this to hold the opening in place.)

Draw a vertical line on a new piece of paper; place neck and hem of altered pattern to this line. Trace round pattern.

Add to side seam the same amount that overlaps the centre back seam.

adjustments, alter the block, alter the toile and re-fit to ensure that it fits perfectly.

When fitting the toile, pin the alterations that are A block pattern should be made in card or strong required. Mark on the toile any instructions you

brown paper as it will be used many times. Some

need; mark with a pencil. Notes on bits of paper are

students prefer block patterns cut out in card so that often mislaid.

they can trace round them; others prefer to have

After fitting the toile, all the alterations must be them drawn on a piece of paper to 'wheel' the made to the block pattern. For very difficult

outline onto a separate sheet underneath.

PART FOUR: COMPUTER AIDED DESIGN (CAD)

14 Computer generated design and pattern making

Connectivity and marketing

192

Design creation and illustration

194

Production data management (PDM)

196

Pattern design and modification

198

Garment sampling – 3D software

programs 200

Garment sampling – textile print

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Design innovation – pattern shapes and print

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Sizing and made-to-measure

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Pattern grading

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Production lay planning and marker making

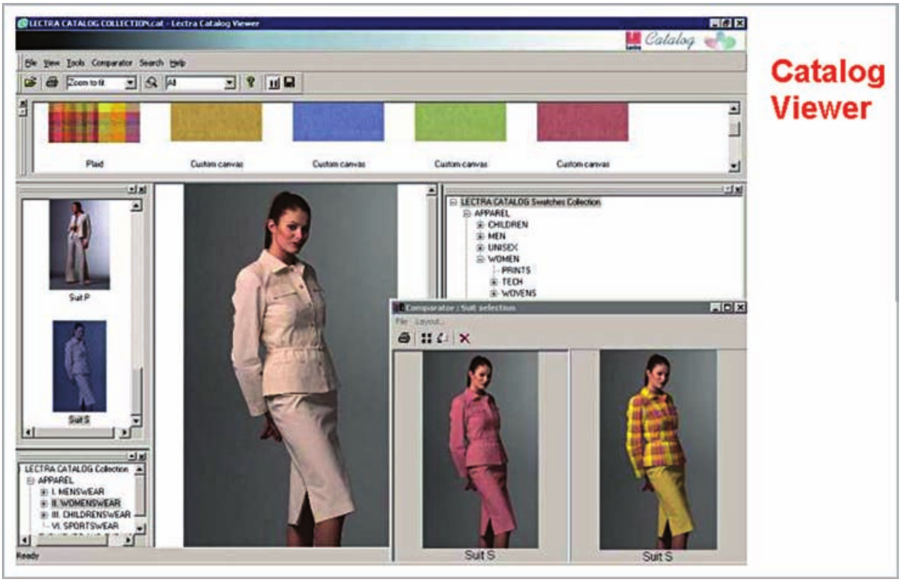
208

Plotting and cutting

210

Product lifecycle management (PLM)

211


LECTRA CATALOG COLLECTION.cat - Lectra Catalog Viewer
Catalog
File View Tools Comparator Search Help
Zoom to fit
All
Plaid
Custom canvas
Custom canvas
Custom canvas
Custom canvas
Suit P
Suit S
LECTRA CATALOG Collection
APPAREL
I. MENSWEAR
II. WOMENSWEAR
III. CHILDRENSWEAR
VI. SPORTSWEAR
LECTRA CATALOG Swatches Collection
APPAREL
CHILDREN
MEN
UNISEX
WOMEN
PRINTS
TECH
WOVENS
Comparator / Suit selection
File Layout
Suit S
Suit S
Ready
Catalog Viewer

Connectivity and marketing

Connectivity

Product data management (PDM) systems are a

major means of connection; they are able to integrate The way computer aided design (CAD) is used is visual information (from either format) with other

changing as globalisation makes connectivity a

production and financial functions. Their primary

priority throughout the manufacturing process. The

function is to organise and control a company's

full process, from style concepts to manufacture and

production but they are the vital link between the

retailing, is usually an investment made by a

company and the retailers.

manufacturer who makes a particular type of garment in large quantities or has strong links with a major retailer. However, small companies can also ***Marketing***

benefit from particular elements of CAD.

Technological advances during the 1990s have

Broadband connections have resulted in a dramatic

produced revolutionary changes in communication.

increase in internet shopping. Online catalogues give The internet links the different sectors of the clothing both retailers and customers a wide choice of industry and has become a vital part of many

merchandise using high-resolution images, some of

companies' operations. It can connect buyers,

which show virtual garments that can be re-draped

designers, manufacturers or suppliers across the

with alternative fabrics and colourways. Others

world by text and images. Most companies use the

include rotating virtual models that show garments

Windows® platform, which enables the integration of

from all angles and allow customers to re-shape the

different types of software programs that can run on

virtual images to their own size. Further

the same CAD system.

developments in virtual reality can create moving

Raster programs These use pixels on the screen models and electronic fashion shows.

to display and manipulate images. Illustrations or

Connectivity between manufacturers and retailers photographs can be scanned into the system and

is crucial in response to sales and trend changes

then manipulated.

emerging within ‘High-street’ fashion outlets.

Vector programs These manipulate data in Garment design for major retailers often requires a the form of mathematical co-ordinates. They are

total concept that reflects a retailer’s image. 3D

used for the construction of accurate technical

software can create virtual stores. This allows them

drawings, pattern cutting, grading and marker

to create store views with different style areas in the making. Vector lines can be converted into raster same shop. They can calculate the number of

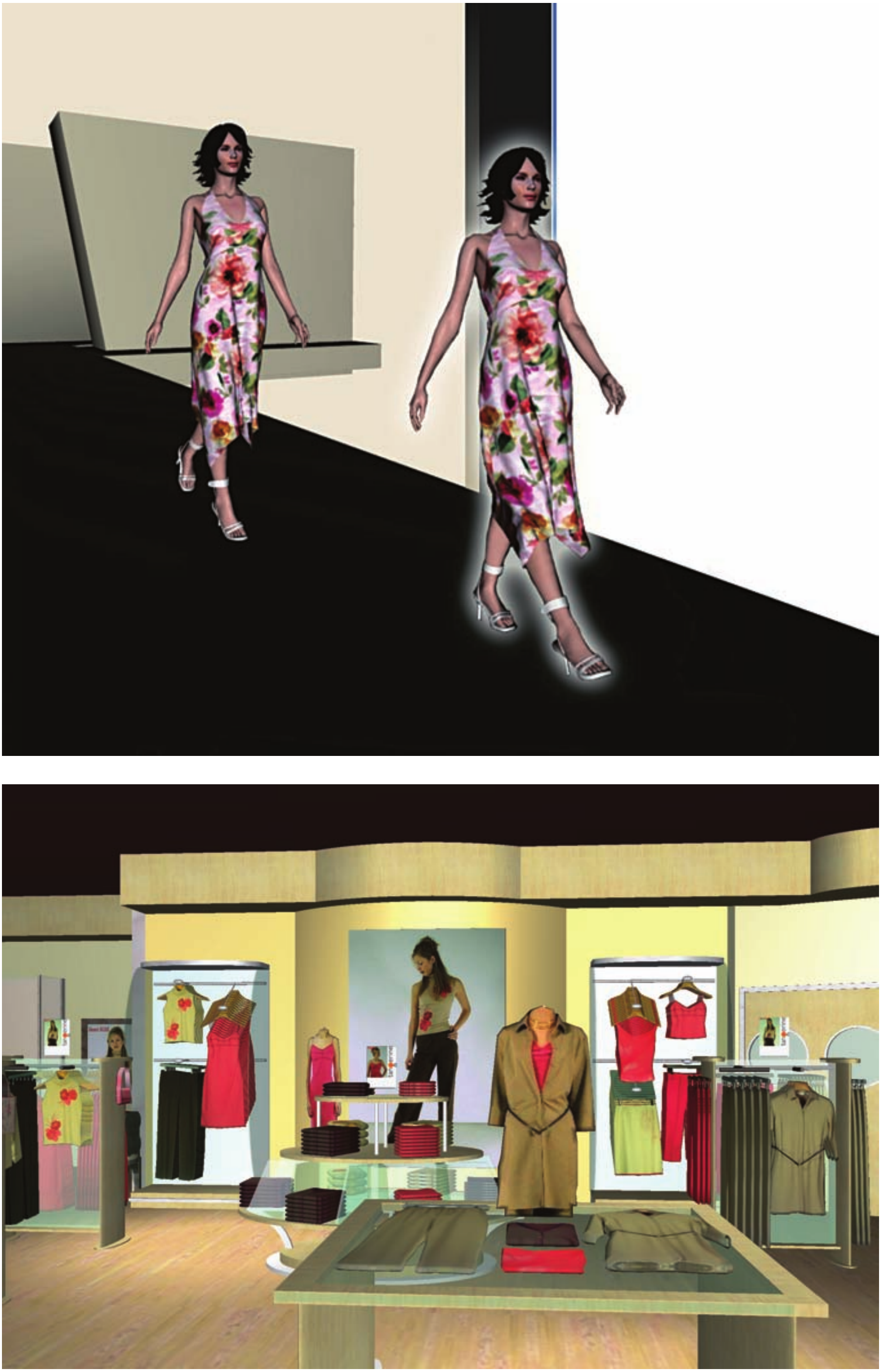
format and many software programs can integrate

garments to display and re-map the images with

the two forms.

different colourways and fabrics.

A page from *Lectra Catalogue* showing a draped garment and alternative colourways and fabrics. *Photograph by permission of Lectra.*



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A virtual fashion show ‘ *3D Runway*’ with a 3D simulated garment and parametric customised walking mannequin. *Photograph by permission* *of Optitex.*

Visual merchandising in *Mockshop*, which creates an interactive virtual store with display stands, fittings and garments. *Photograph by permission of Visualretailing.*

VeriVide
SONY

Design creation and illustration

The word ‘designer’ is a broad description covering

Software programs that work in very high

many different functions. The area a designer may

resolution are now available. They produce high

cover can range from the prediction or generation of

quality line output and photographic images.

the next season’s range to pattern cutting and

Today, fashion retailers demand a fast response;

responsibility for the finished sample. This has to be the advantages of modifying drawings and printing checked in all sizes with cost lay plans, costings and them with variations of colour and pattern are manufacturing specifications. A designer in a large

therefore obvious. Retailers make many decisions

company may specialise in a particular area and

from virtual fabrics and virtual garments created by

be part of a team, whilst in a very small company

2D and 3D textile and drape programs. Woven,

a designer may have to perform all the above

knitted or printed fabrics can be realised on screen

tasks.

and printed by inkjet printers onto fabrics for instant The introduction of CAD into a company appears sampling. Collections can be visualised by mapping

to have increased the division between the creation

fabrics onto sketches and photographs , thus creating of styles and pattern cutting. Pattern cutting is seen virtual models and reducing the amount of samples increasingly as a technical rather than a design

needed each season. Many companies now see paint

process. When a company adopts new technology, a

systems as an essential part of the early selection

division often occurs because different software

stages of design.

programs handle graphic data in different

New developments in virtual reality are creating

ways.

moving models and electronic fashion shows, or

Imaging programs manipulate the data using virtual store displays. It is now possible to access screen pixels. The programs are used for idea

virtual models online through the internet and see

generation, story boards, illustration and many

them from all angles as they rotate in real time. The forms of textile design. The software can offer much garment image can be re-mapped with any of the

greater integration between fabric and garment

different fabrics shown on the screen.

design, offering new possibilities to the designer.

Pattern cutting programs are based on vectors that Designers emerging from the colleges now feel register and manipulate the data in the form of

more comfortable with the technology and this will

mathematical co-ordinates. It takes time to become

undoubtedly increase its application. Costs of

skilled in working computer programs; therefore a

computers, their associated scanners and printers

choice of direction has to be made and there has

and some software programs are now relatively

become a direct distinction between the designer,

cheap and affordable, even by very small companies

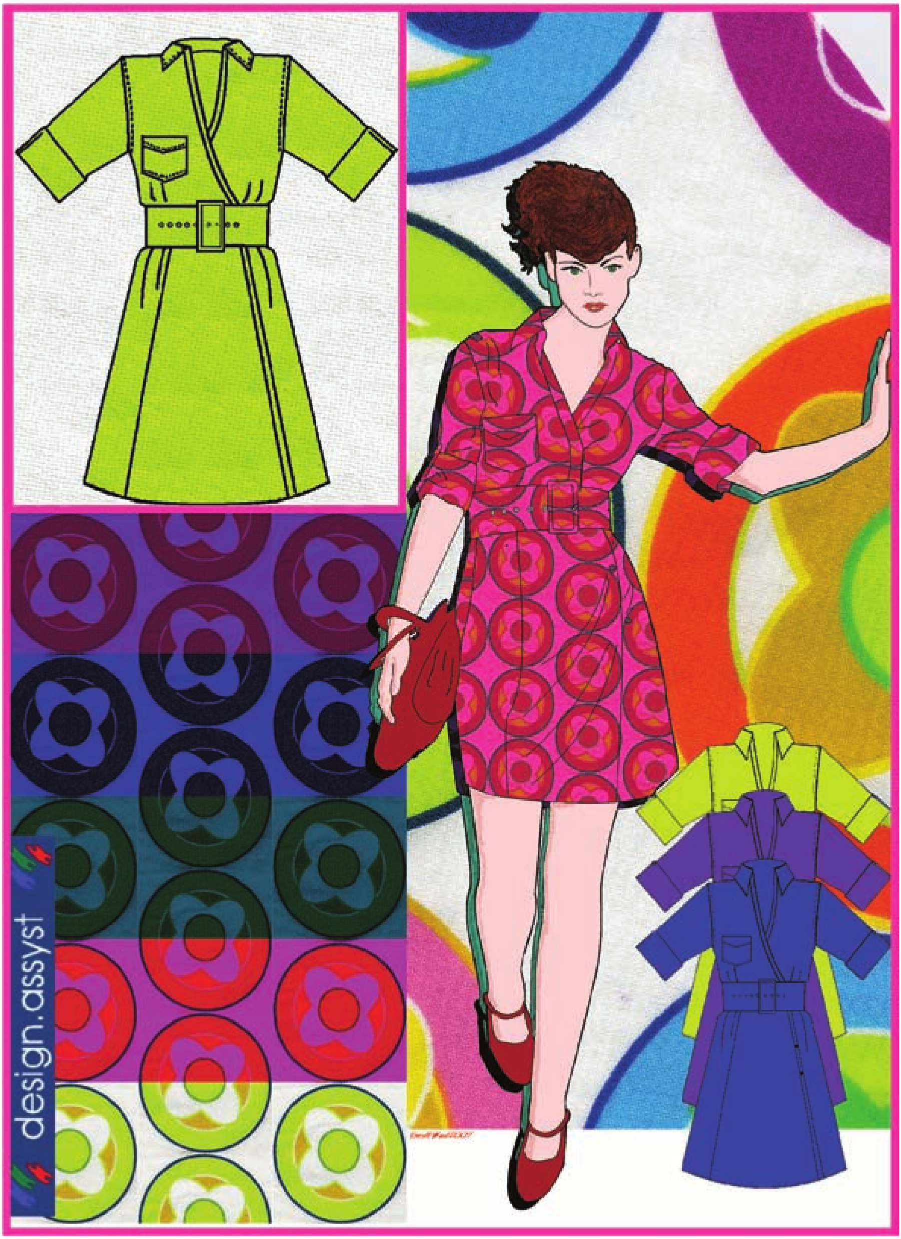
now seen as a stylist (using *imaging programs*), and and freelance designers.

the pattern cutter (using vector technology).

Lectra marries its technologies

to Datacolour to give identical

colourmatching through the design and production cycle. *Photograph by permission of Lectra.*


design.assyst

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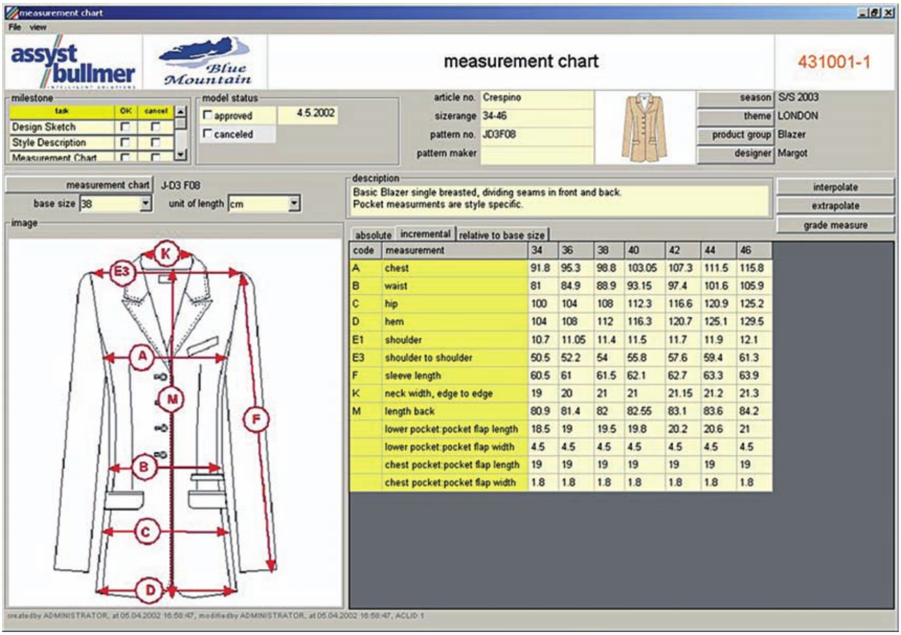
A 2D storyboard incorporating many

CAD images. *Illustration by permission*

of assyst-bullmer.

Draping a garment image with a fabric image . *Photographs by permission of Blue Fox Ned Graphics*.



measurement chart

431001-1

milestone

task	OK	cancel
Design Sketch	☐	☐
Style Description	☐	☐
Measurement Chart	☐	☐

model status

☐ approved 4.5.2002

☐ canceled

article no. Crespino

sizerange 34-46

pattern no. JD3F08

pattern maker

season S/S 2003

theme LONDON

product group Blazer

designer Margot

measurement chart J-D3 F08

base size 38

unit of length cm

image

description

Basic Blazer single breasted, dividing seams in front and back.
Pocket measurments are style specific.

code	measurement	34	36	38	40	42	44	46
A	chest	91.8	95.3	98.8	103.05	107.3	111.5	115.8
B	waist	81	84.9	88.9	93.15	97.4	101.6	105.9
C	hip	100	104	108	112.3	116.6	120.9	125.2
D	hem	104	108	112	116.3	120.7	125.1	129.5
E1	shoulder	10.7	11.05	11.4	11.5	11.7	11.9	12.1
E3	shoulder to shoulder	50.5	52.2	54	55.8	57.6	59.4	61.3
F	sleeve length	60.5	61	61.5	62.1	62.7	63.3	63.9
K	neck width, edge to edge	19	20	21	21	21.15	21.2	21.3
M	length back	80.9	81.4	82	82.55	83.1	83.6	84.2
	lower pocket:pocket flap length	18.5	19	19.5	19.8	20.2	20.6	21
	lower pocket:pocket flap width	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	chest pocket:pocket flap length	19	19	19	19	19	19	19
	chest pocket:pocket flap width	1.8	1.8	1.8	1.8	1.8	1.8	1.8

createdby ADMINISTRATOR, at 05.04.2002 16:58:47, modifiedby ADMINISTRATOR, at 05.04.2002 16:58:47, ACLID 1

196

Production data management (PDM)

Students entering their first design position are often software allows authorised users to access and astonished at the amount of documentation that is

modify the sketches or photographs; the pattern,

required from the designer. Organisation is central to sizing and measurements; the fabric, linings, the designer's work; rigorous notation begins with

interfacings and trimmings information; the lay-plan

the early style concepts where initial decisions on

and costing calculations; assembly instructions and

fabrics, trimmings and their sources are required.

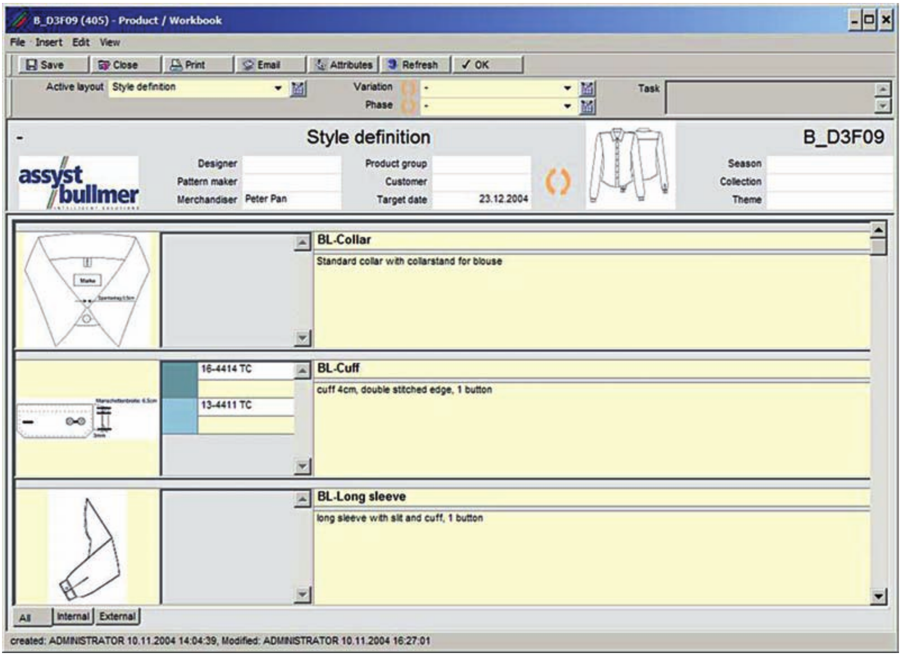
making up procedures. External 'cut, make and trim'

Precise information on sizing, garment

facilities in other factories and other sourcing

measurements and construction details are crucial
information can also be accessed. The information
to the acceptance and production of a style.
can be constantly updated with everybody
PDM software controls the whole production
being informed instantly about modifications.
process of the garment. The production cycle of a
PDM modules offer tracking of the workflow of
garment requires accurate information that can be
garments and show the status of a style at any time
accessed by all the departments in the company. A
in order to control production schedules and achieve
production data management system eliminates the
target dates.
repetition of identical information being processed.
Libraries of visual images of styles and
The information given by the designer on each style
construction processes can be built and accessed for
forms the foundation for the style to travel through
further reference.
the database as it enters the production cycle. The

pdm.assyst specification form showing finished garment measurements . *Illustration by permission of assyst-bullmer*.


B_D3F09 (405) - Product / Workbook
File
Insert
Edit
View
Save
Close
Print
Email
Attributes
Refresh
✓ OK
Task
assyst bullmer
All
Internal
External

Active layout: Style definition

Variation: -

Phase: -

Style definition

B_D3F09

Designer		Product group		Season	
Pattern maker		Customer		Collection	
Merchandiser	Peter Pan	Target date	23.12.2004	Theme	

BL-Collar

Standard collar with collarstand for blouse

BL-Cuff

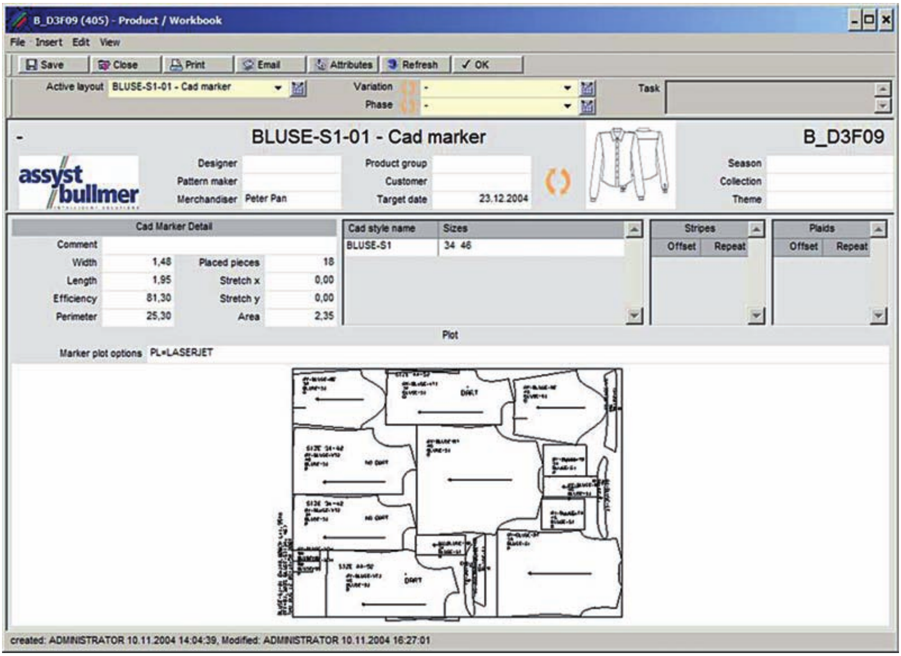
▨	16-4414 TC
▨	13-4411 TC

cuff 4cm, double stitched edge, 1 button

BL-Long sleeve

long sleeve with slit and cuff, 1 button

created: ADMINISTRATOR 10.11.2004 14:04:39, Modified: ADMINISTRATOR 10.11.2004 16:27:01


B_D3F09 (405) - Product / Workbook
File
Insert
Edit
View
Save
Close
Print
Email
Attributes
Refresh
✓ OK
Task
assyst bullmer
DART
NO DART

Active layout: BLUSE-S1-01 - Cad marker

Variation: -

Phase: -

BLUSE-S1-01 - Cad marker

B_D3F09

Designer		Product group		Season	
Pattern maker		Customer		Collection	
Merchandiser	Peter Pan	Target date	23.12.2004	Theme	

Cad Marker Detail

Comment:

Width	1,48	Placed pieces	18
Length	1,95	Stretch x	0,00
Efficiency	81,30	Stretch y	0,00
Perimeter	25,30	Area	2,35

Cad style name	Sizes
BLUSE-S1	34 46

Stripes	
Offset	Repeat

Plaids	
Offset	Repeat

Plot

Marker plot options: PL=LASERJET

created: ADMINISTRATOR 10.11.2004 14:04:39, Modified: ADMINISTRATOR 10.11.2004 16:27:01

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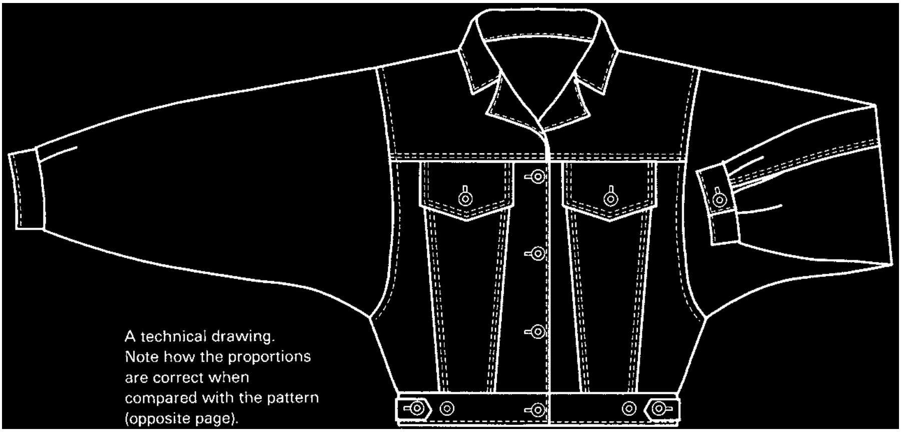
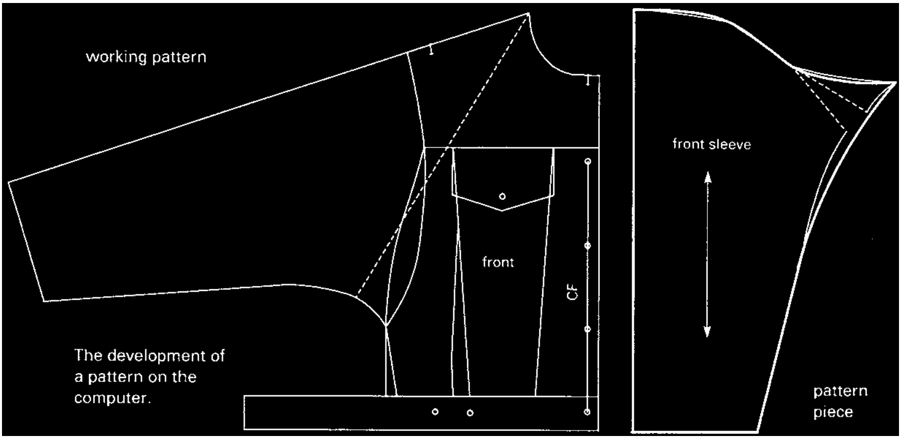
pdm.assyst form showing technical drawings of construction details for a blouse. *Illustration by permission of assyst-bullmer*.

pdm.assyst form displaying a costing marker for the blouse. *Illustration* *by permission of assyst-bullmer.*



A technical drawing. Note how the proportions are correct when compared with the pattern (opposite page).



The development of a pattern on the computer.

Pattern design and modification – 1

Specification drawings

Means of pattern development

Designers have to record styles by means of

Designers use a range of techniques:

specification drawings. This is particularly important

- Modelling the garments on the dress stand.

for the designer who delegates the pattern

- Direct

measurement.

development of a style to a pattern cutter. The

- Construction of patterns by instructions (usually designer has to develop a concise means of basic styles in menswear).

communication within the design team as well as the

- Copy of an existing pattern.

production staff. The technique of precise technical

- Adaptation of a previous pattern.

drawing, in correct proportions and measurements,

- Adaptation

of

blocks.

can be aided by the use of computer software

Some designers use a single technique, others

programs such as *Adobe Illustrator* or *Corel Designer*.

combine them to achieve the final pattern, and it is These drawings can then be imported into most possible to combine any of the above methods with

PDM software. The drawing can then be accurately

the creation of computer generated patterns. But

interpreted into a first working pattern.

adaptations of blocks or previous patterns are the

Proportionate measurements can be taken from

ways most companies use their pattern design

specification drawings in order to ensure an accurate system (PDS) because they are a means of quality interpretation of the original design.

control and sizing standards.

A technical drawing.

Note how the proportions

are correct when

compared with the pattern

(below).

working pattern

front sleeve

front

CF

The development of

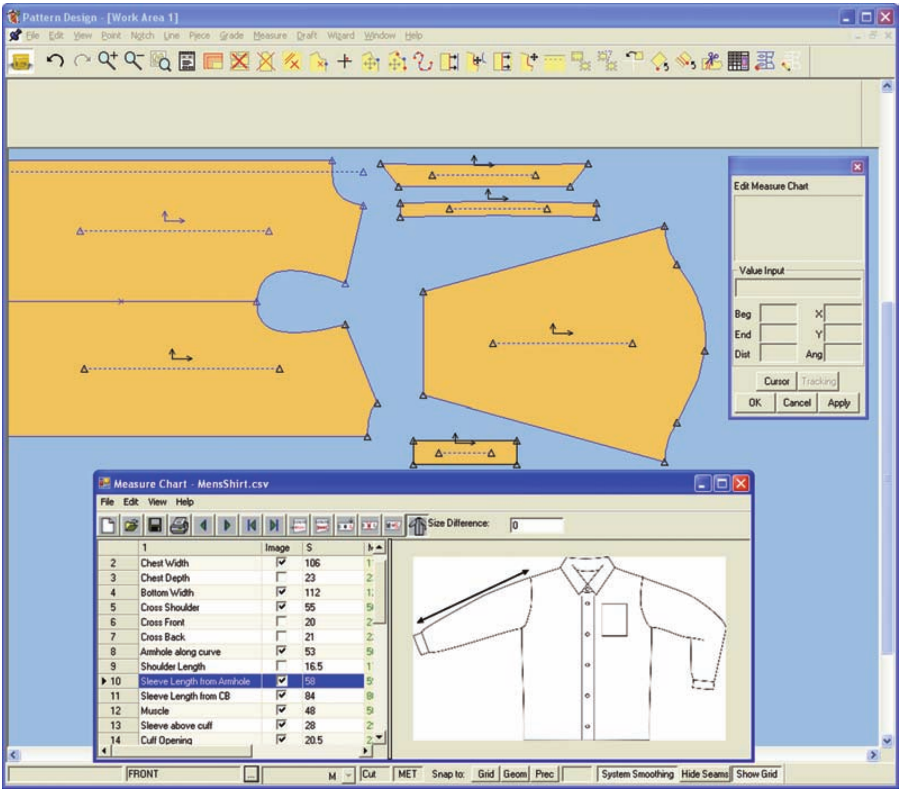
a pattern on the

Pattern

computer.

piece

A technical drawing and the development of the pattern on the computer. Note how the proportions of the pattern relate to the drawing.


Pattern Design - [Work Area 1]
File Edit View Point Notch Line Piece Grade Measure Draft Wizard Window Help
Edit Measure Chart
Value Input
Beg
End
Dist
X
Y
Ang
Cursor
Tracking
OK
Cancel
Apply
Measure Chart - MensShirt.csv
File Edit View Help
Size Difference:
FRONT
Cut
MET
Snap to:
Grid
Geom
Prec
System Smoothing
Hide Seams
Show Grid

Size Difference: 0

	1	Image	S
2	Chest Width	☑	106
3	Chest Depth	☐	23
4	Bottom Width	☑	112
5	Cross Shoulder	☑	55
6	Cross Front	☐	20
7	Cross Back	☐	21
8	Armhole along curve	☑	53
9	Shoulder Length	☐	16.5
▸ 10	Sleeve Length from Armhole	☑	58
11	Sleeve Length from CB	☑	84
12	Muscle	☑	48
13	Sleeve above cuff	☑	28
14	Cuff Opening	☑	20.5

M

Pattern design and modification – 2

Pattern design system (PDS)

Some systems (for example the *assyst-bullmer*

software) have ‘macros’ where the operator can teach

Although patterns can be drafted directly on the

the system to perform some drafting operations that

screen, a PDS is particularly adept at adapting blocks are repetitive. This option is ideal for companies or modifying patterns stored within the computer.

producing standard types of design, for example

The software can perform many standard pattern

career wear. Some of the more advanced software adaptations such as swinging darts, adding pleats

can program the computer with instructions for

and fullness, *etc.* They also perform repetitive tasks drafting a particular style. This method can create such as adding seam allowances, instructions and

patterns to individual sets of measurements, thus

labelling.

creating bespoke patterns for individual sizing.

The acknowledged value of a PDS is that it will

The ‘natural environment’ of the work table has

systemise the procedure of creating an accurate

been reproduced, allowing a designer to work

pattern with many similar but slightly differing

directly on a digitiser with personal tools and

parts, such as lined jackets and coats. The ability to materials, but the lines are recorded electronically.

overlay and check the parts is crucial in this process.

Sample calico toiles that are modelled on the

The software can also associate parts so that any

stand, or innovative manually cut patterns (where

modification during the development process to the

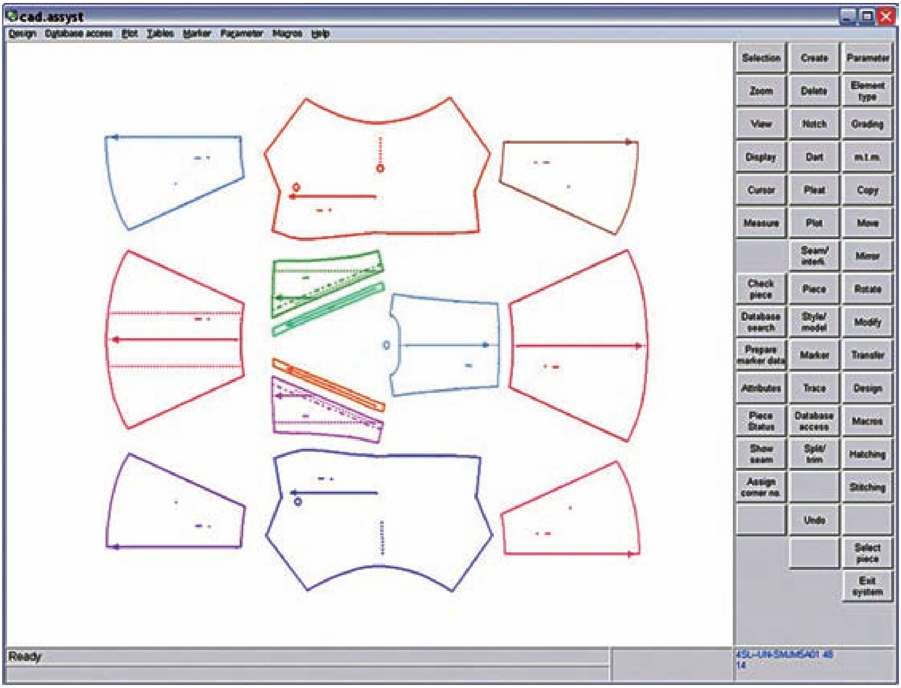
the shape is changed during the pattern

outer garment can be programed to occur on

development), can be traced into the system, refined associated pieces, such as the interlining or lining.

to a production level and seam allowances added.

Pattern development of a shirt with reference to a data measurement chart. *Illustration by permission of Gerber*.


cad.assyst
Design
Database access
Plot
Tables
Marker
Parameter
Macros
Help
Selection
Create
Parameter
Zoom
Delete
Element type
View
Notch
Grading
Display
Dart
m.t.m.
Cursor
Pleat
Copy
Measure
Plot
Move
Seam/ interl.
Mirror
Check piece
Piece
Rotate
Database search
Style/ model
Modify
Prepare marker data
Marker
Transfer
Attributes
Trace
Design
Piece Status
Database access
Macros
Show seam
Split/ trim
Hatching
Assign corner no.
Stitching
Undo
Select piece
Exit system
Ready

Garment sampling – 3D software programs

Once a pattern is completed for a design, the next process is to create a made up garment sample, often before decisions are made. At least four CAD suppliers are offering differing versions of creating samples within a 3D environment. The aim is to reduce the number of samples or toiles made up in the design room.

The 3D program *Vilna.* The positions are shown where the garment pieces have to be ‘virtually stitched’ together.

Illustration by permission of assyst-bullmer.

Garment pieces created in a 2D pattern cutting program.

Illustration by permission of assyst-bullmer.

The CAD suppliers have been concentrating their 3D research on creating programs that will realise 2D patterns as virtual garments on the dress stand or on virtual models by ‘stitching’ the pattern pieces. This process allows the designer to see how the made up garment will look and fit during the design process.

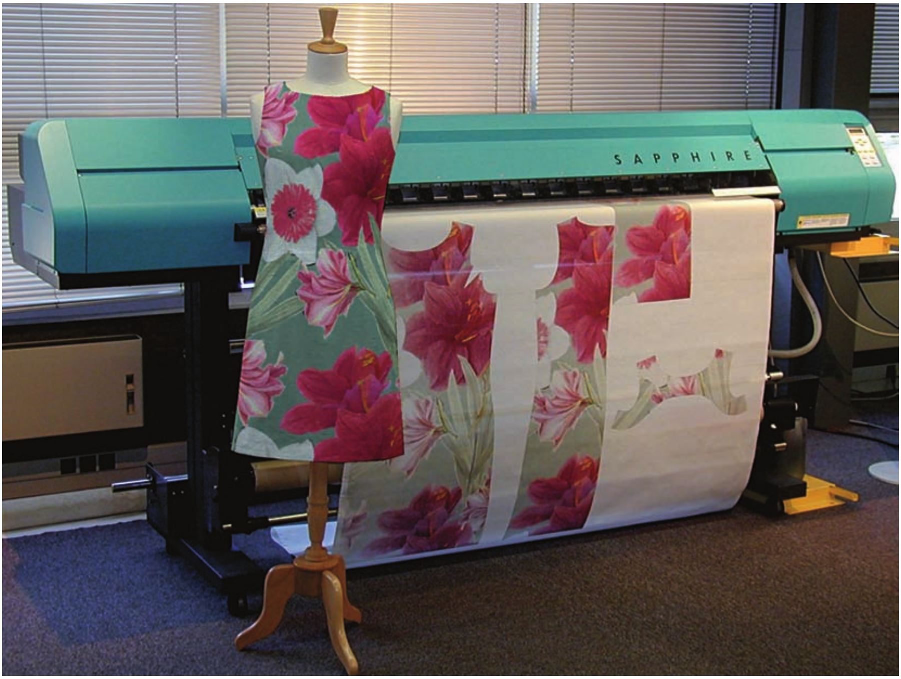
The characteristics of the fabric, particularly its draping qualities, can be entered to give a realistic image. However, the most success has been with garments that fit closely to the body form. The stand or virtual body can be modified to different shapes and sizes and some programs also show the ease distribution.

Many companies have been reluctant to purchase

3D programs. They prefer to rely on experienced designers and pattern cutters, who have worked with pattern shapes and fabrics, and can visualise 2D shapes as 3D images. But as internet communication across the world is becoming so important, 'virtual 3D samples' are likely to have an increasing role.

The image of the garment 'worn' by a virtual model.

Illustration by permission of assyst-bullmer.



Garment sampling – textile print

Many of the CAD suppliers offer textile programs of means that sample garments can be made up, different levels. CAD software has been developed evaluated and modified during the process of style

for most textile processes, some directly linked to

development. Some software programs allow the

production machinery. However, for garment

textile design to be integrated into the garment

designers, it is the textile simulation programs (see pattern shapes on screen and then to be produced as page 196) that have proved to be most useful in the

printed fabric shapes ready for making up.

creation of storyboards or style concepts and the

The 3D programs that create garment simulation

development of ranges.

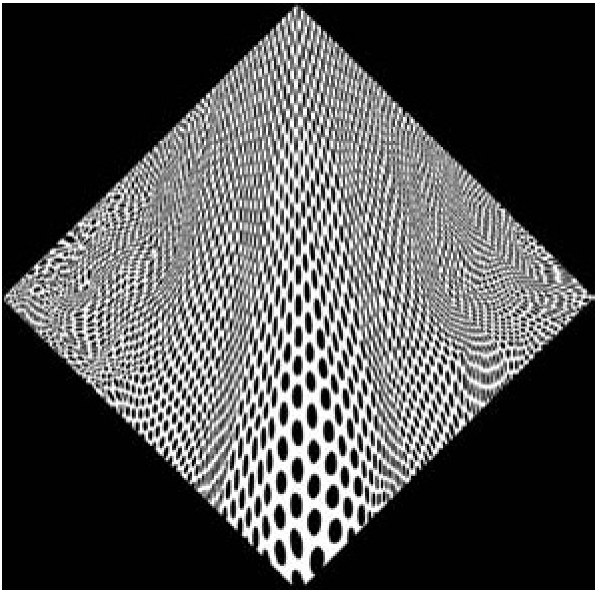
on models take this technique further; the sample

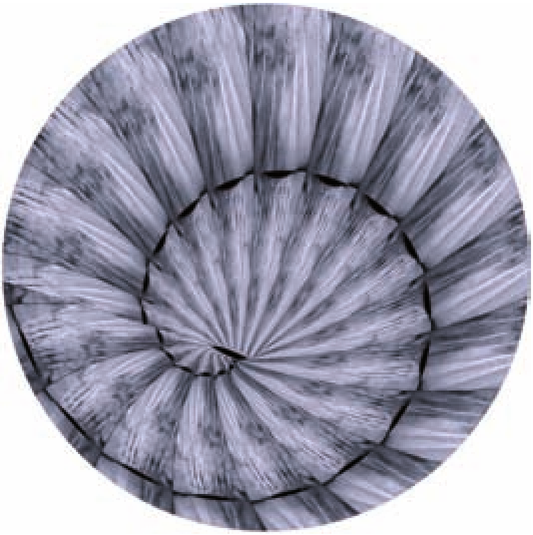
A0 digital printers now offer the possibilities of

can be seen revolving in real time so that the print

creating short sample lengths of printed fabric. This design can be checked from all views.

Pattern development incorporating printed textiles. Fabric pieces printed out on an inkjet printer and then made up into sample garments. *Photograph by permission of Lectra*.





Design innovation – pattern shapes and print

The possibilities of integrating fabric design into

Using the basic shapes, the circle and the square,

pattern shape can be used not only for the quick

researchers at the Nottingham Trent University have

sampling of garments. A few designers are creating

used the drape manipulation attributes of the

new concepts of 2D to 3D design; they see the print

technology to develop and change the print *during* as an integral part of the pattern shape, which *the process of garment design*.

should evolve and change as the pattern shape is

Working with simple pattern shapes can give

developed. They also use the power of technology

students an opportunity to explore the relationship

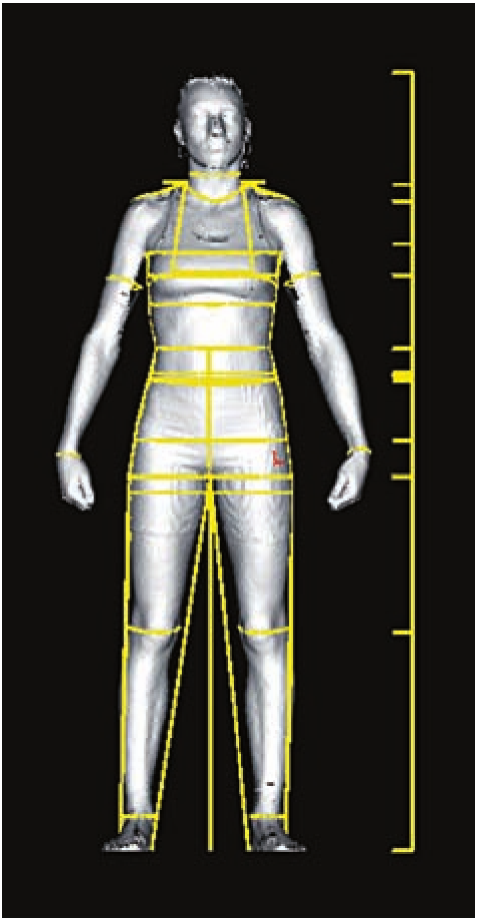
to create new forms of imagery in their textile

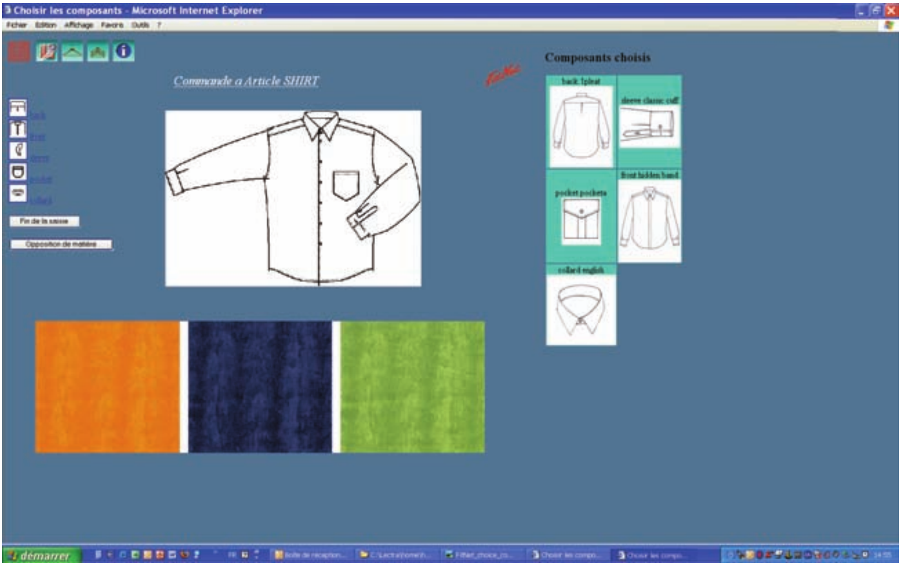
between the surface imagery that they create and the

designs.

form.

Working with the circle and the square; experimental and integrated garment and print design. *Photographs by permission of Katherine Townsend and Gillian Bunce*.




Choisir les composants - Microsoft Internet Explorer
Fichier Edition Affichage Favoris Outils ?
Commande a Article SHIRT
Fin de la saisie
Opposition de matière
Composants choisis
back 1pleat
sleeve classic cuff
pocket pockets
front hidden band
collard english
démarrer

Sizing and made-to-measure

An increasing number of companies are including

be automatically adjusted, and small pieces, such as

made-to-measure software in their product range.

pockets and collars rarely need adjustments. A lay

Different elements of the CAD process have made

plan is constructed for the modified pattern; this is this feasible. Mass customisation is seen as offering a sent directly to a single ply cutter which cuts better fit, and also a wider choice of styles, fabrics, individual garments at high speed.

linings and trimmings.

Other software developments

The standard process

The demand for made-to-measure software

The process begins with the customer's

programs has led to a different way (parametrics) of

measurements being taken manually, or by 3D

constructing patterns in CAD. The patterns are

scanning systems. These systems not only provide

defined by a set of dimensions that can be modified the measurements of the customer, but also define by typing in new measurements. If a point is

the form of the virtual figure that can be constantly dragged by the mouse, the system recalculates the updated.

entire model accordingly.

Fabrics and styles can be selected in the store or

Expermental work has been undertaken to create via the internet. Once the style is selected, the

3D sized garment patterns by the ‘wireframe’

customer’s measurements are compared to the

modeling techniques that are used in solid product

nearest size of pattern stored in the system. A second manufacturing. Some success has been achieved in layer of grade rules is then used to cover most basic creating body fitting garments such as bras and some alterations and body stance. When new athletic wear. However, the complexity of the fit and measurements are given, the system automatically shape of many garments, particularly those in

modifies the pattern to the new measurements.

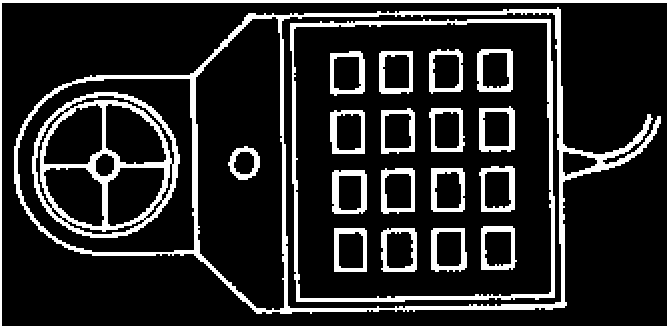
fashion wear, means that the adoption of these

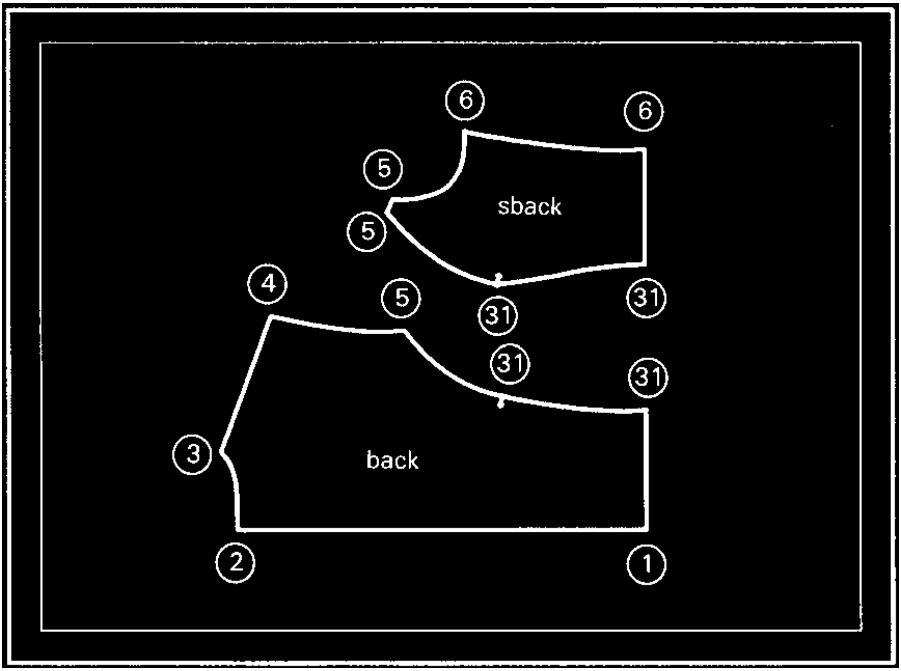
Non-standard adjustments can be made in pattern

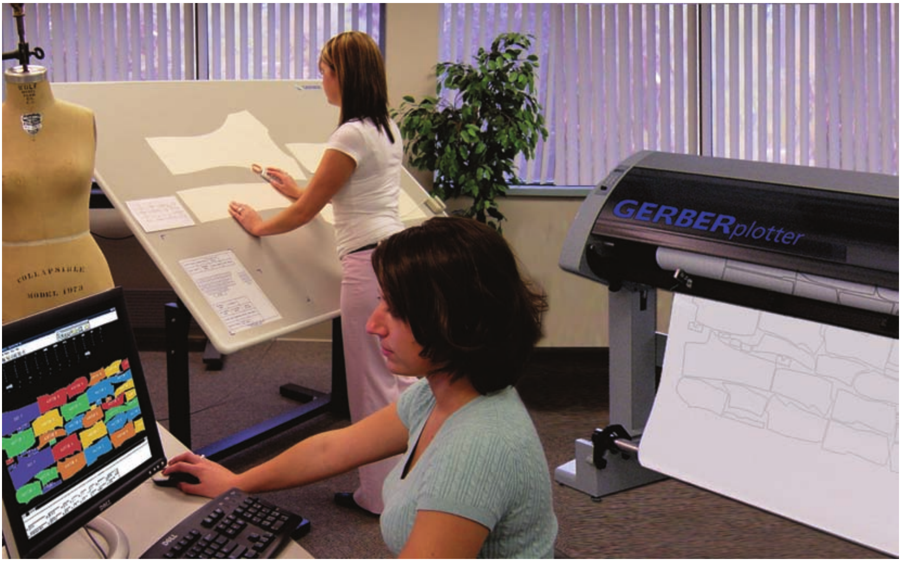
techniques by the current clothing industry is

design software. Any lining or interlining pieces can unlikely.

Measurements taken by body scanning, and fabric and style selection for made-to-measure garments in the *FitNet* program. *Illustrations by permission of Lectra.*




6
6
5
sback
5
4
5
31
31
31
31
3
back
2
1


GERBERplotter

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Pattern grading – 1

Overview

Grading offers manufacturers more speed, accuracy and consistency in sizing their patterns than can be achieved by manual grading. After the sample

design has been accepted and a retailer has placed

an order, the garment has to be produced in a range

of sizes. Most large companies are now using CAD

to grade their patterns.

Patterns created within a PDS can pass directly

into the grading section. However, some companies

with CAD systems are still cutting patterns

manually. Therefore, they have to input their pattern by digitising the contour.

The input of patterns

grading points

If a pattern has been cut manually, it is usually

digitised into the system. The pattern is placed on

the digitiser and the profile of the pattern is entered by accurately identifying the end of straight lines, cursor

and points along curved lines, with the cross hairs of an electronic cursor. Folds, the grain line and the position of notches, pockets and buttonholes are also An alternative system of inputting patterns has been entered.

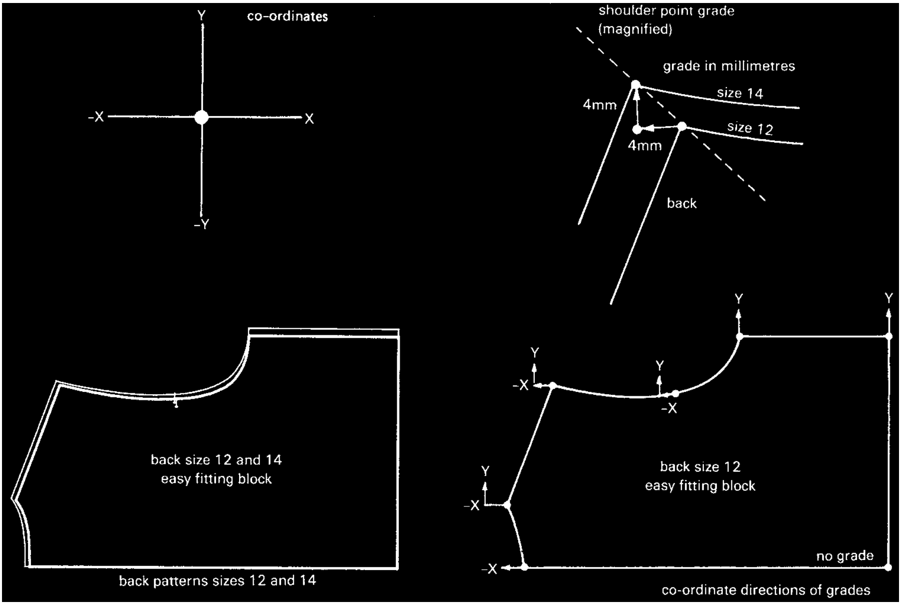
developed: *Digiflash*, by Audaces, uses a digital Points to be graded, and also their rules, can be camera to record the patterns. The pixellated images

entered during the digitising or can be recorded later of the patterns are then automatically traced to when the pattern is on the computer screen.

outlined shapes for further processing.

Digitising a pattern. The image also shows a cost marker of graded pieces and plotting out on an A0 plotter.

Photograph by permission of Gerber.


Y
co-ordinates
-X
X
-Y
shoulder point grade (magnified)
grade in millimetres
size 14
4mm
size 12
4mm
back
back size 12 and 14 easy fitting block
back patterns sizes 12 and 14
Y
Y
-X
Y
-X
Y
-X
back size 12 easy fitting block
Y
-X
-X
no grade
co-ordinate directions of grades

205

Pattern grading – 2

The general grading process

between sizes is −4 mm horizontally and 4 mm

vertically (see diagram).

Some basic sizing information is required for a set of The grade rule can be written in one tenth of a graded patterns to be produced. The following

millimetre (e.g. −40 40 mm) or in centimetres (e.g.

sources can be used:

−0.40 0.40 cm). It is the instruction across a range of

- Size charts of body measurements.

sizes. Inconsistent grades between sizes can be

- Garment

specifications.

registered. The same grade rule can be used at any

- A set of manually nested patterns.

point that requires the same grade. One grade rule is

- Grade rules supplied by a CAD supplier.

written as zero 00.00 00.00; it is used where no grade

- Grades copied from a graded pattern shape

is required.

already in the computer system.

Companies often calculate many of the rules

The grading of patterns by most CAD systems is

directly from the size charts or garment

based on identifying where specific points on the

specifications. However, manually graded ‘nests’ of

pattern have to be extended or reduced to create a

blocks can be used. The nest is ‘stacked’ usually on

new size. These points are moved by X and Y co—

the armscye depth line. The directions of the X and Y

ordinates that tell the computer the direction of

co-ordinates are registered from this point. Each

movement; measurements are given to identify the

graded point on the nest (these are the beginnings

position of the new point. This co-ordinate is known

and ends of lines and specific points, *i.e.* control

as a grade rule.

points or notches) is measured. The measurements

are checked with grading increments on size charts.

Calculating a grade rule

Grade rules can be copied from other patterns;

Grade rules are usually calculated to one tenth of a

many companies use this method. Also, patterns

millimetre. The amount of movement in the X

with grade rules attached can be modified, and these direction is written first, followed by the Y direction.

grades can be retained on the new style. This is a

For example, the movement of the shoulder point

quick way of producing grades for sample costings.

Y

co-ordinates

shoulder point grade

(magnified)

grade in millimatres

size 14

4mm

x

–

x

size 12

4mm

back

–Y

Y

Y

Y

Y

–x

–x

back size 12 and 14

Y

back size 12

easy fitting block

easy fitting block

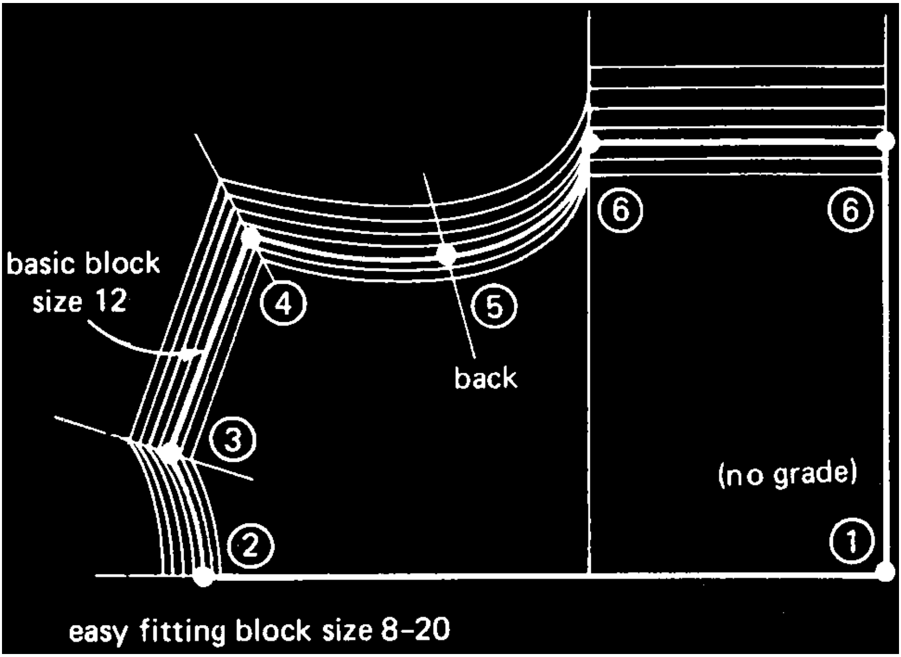
–x

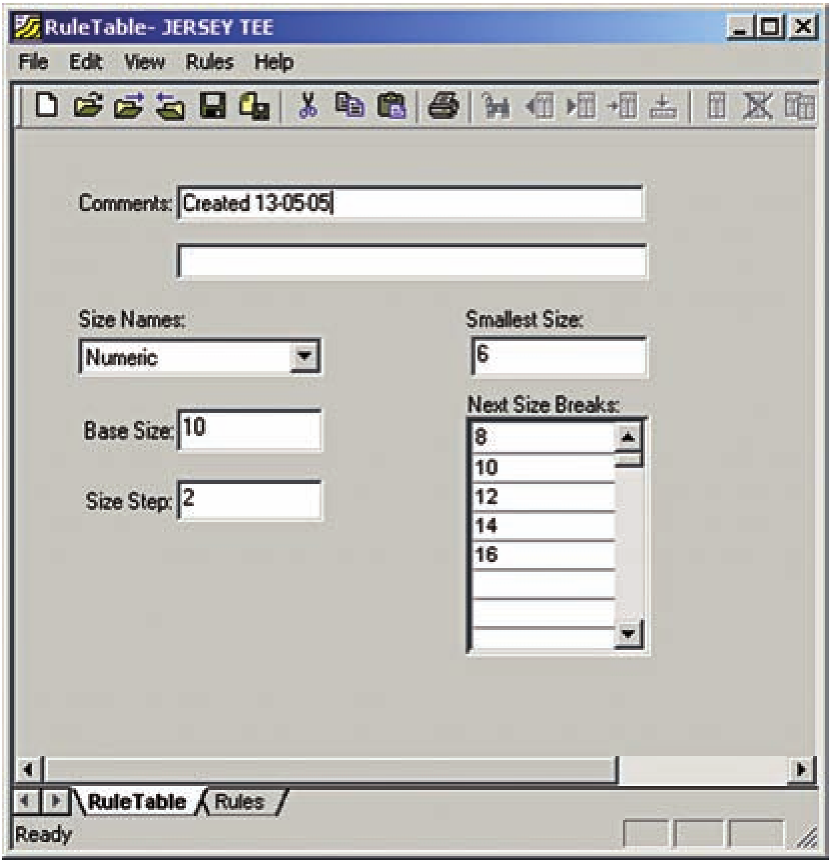
no grade

–x

back patterns sizes 12 and 14

co-ordinate directions of grades


basic block
size 12
④
⑤
back
⑥
⑥
③
(no grade)
②
①
easy fitting block size 8–20


RuleTable- JERSEY TEE
File Edit View Rules Help
RuleTable
Rules
Ready

Comments: Created 13-05-05

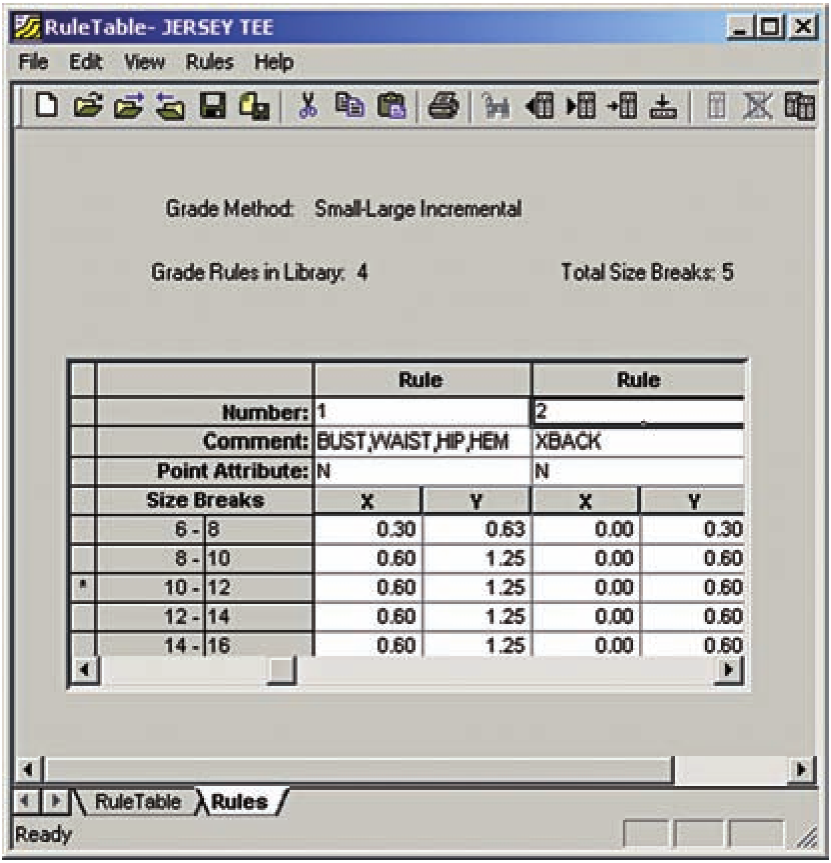
Size Names: Numeric

Smallest Size: 6

Base Size: 10

Size Step: 2

Next Size Breaks:
8
10
12
14
16



Grade Method: Small-Large Incremental

Grade Rules in Library: 4

Total Size Breaks: 5

		Rule		Rule	
Number:		1		2	
Comment:		BUST,WAIST,HIP,HEM		XBACK	
Point Attribute:		N		N	
Size Breaks		X	Y	X	Y
6 -	8	0.30	0.63	0.00	0.30
8 -	10	0.60	1.25	0.00	0.60
10 -	12	0.60	1.25	0.00	0.60
12 -	14	0.60	1.25	0.00	0.60
14 -	16	0.60	1.25	0.00	0.60

Pattern grading – 3

Grade rule libraries

Once the rules for a block or basic pattern are entered into the library, any similar or adapted pattern can also be graded using the same grade rules. However, few patterns are exactly the same shape. This means that new grade rules have to be

Grade rule libraries are use by many large manufacturers, particularly where their products do not vary greatly.

A grade rule library is compiled of numbered grade

calculated by the grader and these rules added to the rules to be used at the grade points. When the number grade rule library.

is attached to a point, it will operate the grade. See the The rule libraries of companies with diverse diagram below. The number of sizes, the size breaks

products can become very large, even when split

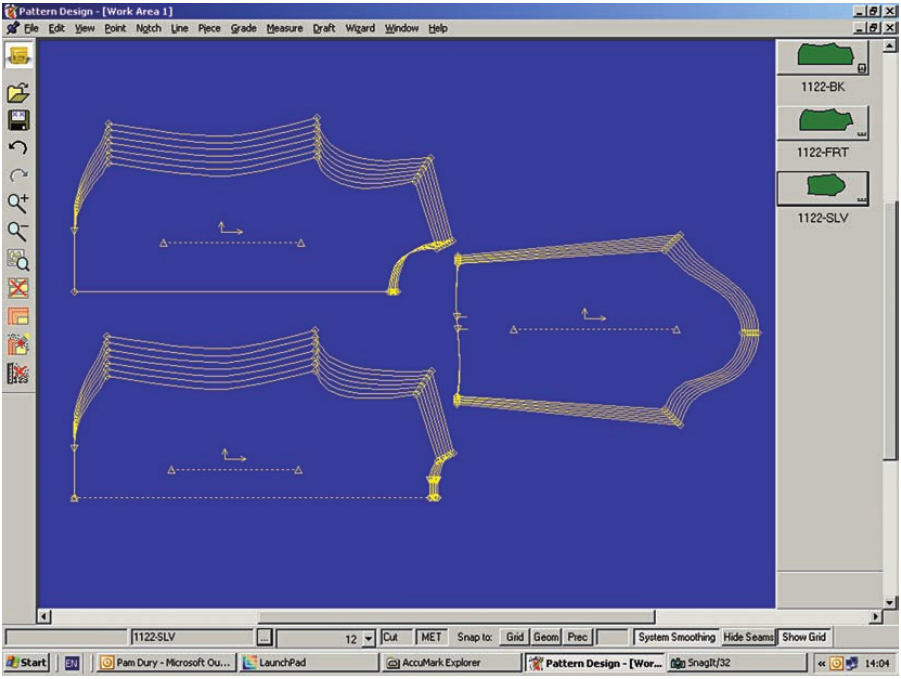
and the names of the sizes have to be entered into the into sections. This is the reason why some companies program. The grade rules for the pattern are then

prefer to apply grade rules interactively or by

typed in to create a library for that size range.

copying them from other patterns.

Examples of screen displays showing the input of sizes and grade rules. *Illustrations by permission of Gerber*.


Pattern Design - [Work Area 1]
File Edit View Point Notch Line Piece Grade Measure Draft Wizard Window Help
1122-BK
1122-FRT
1122-SLV
1122-SLV
12
Cut
MET
Snap to:
Grid
Geom
Prec
System Smoothing
Hide Seams
Show Grid
Start
EN
Pam Dury - Microsoft Ou...
LaunchPad
AccuMark Explorer
Pattern Design - [Wor...
SnagIt/32
14:04

Pattern grading – 4

Grading the pattern

a line or the length of the line itself. If a graded

pattern is split, the system will grade the new seam

Pattern pieces, whether they have been digitised or

lines proportionally. Graded patterns can be visually generated in a PDS, will be checked to make sure modified on individual sizes and these modifications that all grade rules (applied by any of the methods are automatically updated on the rule table.

described) are correct. The instruction to grade the

‘Walking’ graded pieces allow seams to be checked

pattern is then given.

for measurement along the making up lines.

This order will generate a nest of grades over a

A number of companies are developing systems

range of sizes, using the grade rules attached to the based on parametrics. The sizes are based on the piece or from rules stored in the grade rule library.

measurements used to draft the pattern. Any new

The graded patterns appear on the screen where

sizes are generated not through point movements

they can then be checked. The patterns can then be

but through measurement changes.

drawn out on a plotter or sent directly through the

A number of small clothing companies do not

system for lay planning and cutting.

have pattern cutting or grading expertise, so some software companies offer a range of patterns of basic

Further grading techniques

garments (with alternative sleeve and collars)

Sophisticated grading techniques are now included

already graded. Short-cut techniques are useful for

in many programs. Perpendicular grading calculates

companies with a narrow product base but

the grades with reference to the angle of another

this method does restrict their styling

line; tangent grading techniques control points along capabilities.

Examples of a screen display showing graded pieces. *Illustration by permission of Gerber.*

Creating models

sizes in the order and will offer a range of

alternatives to the company.

Most of the middle and larger size clothing

manufacturers are using CADCAM (computer aided

Marker making

design and manufacturing) systems. The principal

reason why they buy a system is to improve their

Once the information for the order has been

fabric utilisation and the speed of their production.

processed, lay planning software brings the pattern

More than one lay plan is usually required for a

pieces in the correct number and rotation (one-way

style; separate models are required for interlinings, or two-way fabric) for the particular marker onto the linings or contrasting fabrics.

screen. The pattern pieces can then be placed

A model is created by calling up the style's

manually by an operator 'dragging' the pieces into

pattern pieces (stored in the system) that are to be

position. Many options allow actions such as the

cut in the particular fabric. Information about the

grouping of pieces, the splitting of pieces, and stripe number of pieces, and whether a piece is mirrored or and plaid matching capabilities.

paired is then required. Further style information can The utilisation figure is shown as the marker is be accessed from PDM software and many systems

constructed. Fabric utilisation is the amount of cloth are multi-tasking, allowing the operator to work on area used by the pattern pieces. Manufacturers

different programs on the same screen.

expect this to be higher than 80%; the higher the

figure the less cloth is wasted.

A marker order for a lay plan

Automatic marker making

A marker order for each fabric needs the following

Most CADCAM systems will make markers

instructions:

automatically. Most large manufacturers now use the

(1) Piece

name.

facility because improvements in computer hardware

(2) Sizes.

have increased the speed and levels of fabric

(3) Number

of

pieces.

utilisation. The system will try different methods of (4) Fabric constraints (single-or double-ply, face-to-placing the pieces in the lay and will offer the best face, one-way nap or pattern).

alternative.

(5) Any blocking of areas.

(6) Any buffering around pieces.

Distance marker making

(7) Matching of checks or patterns.

Direct web-based marker making is now available by

companies such as assyst-bullmer through

Cut order planning

automarker.com. It offers a global marker making Order processing for production lay plans can be service to manufacturers together with data security.

very complex. There can be as many as eight fabrics

Its advantage is the power of the main computer that

in a jacket, each requiring a model and separate lay

offers quality markers across the world twenty four plan (marker). In addition, large orders with many

hours per day, every day. The service is aimed at

sizes will need a number of markers. It is the length manufacturers who are short of staff, have peak of the cutting table, the width of the fabric and the workloads, are wanting to expand their production, number and sizes of the garments that determine the

or those who have production spread across the

cutting plan for the markers.

world. It also provides a fast costing marker system

Fabric utilisation is crucial to a company's

for samples or single orders.

profitability. Cut plan software programs claim to

Compatibility between different CADCAM

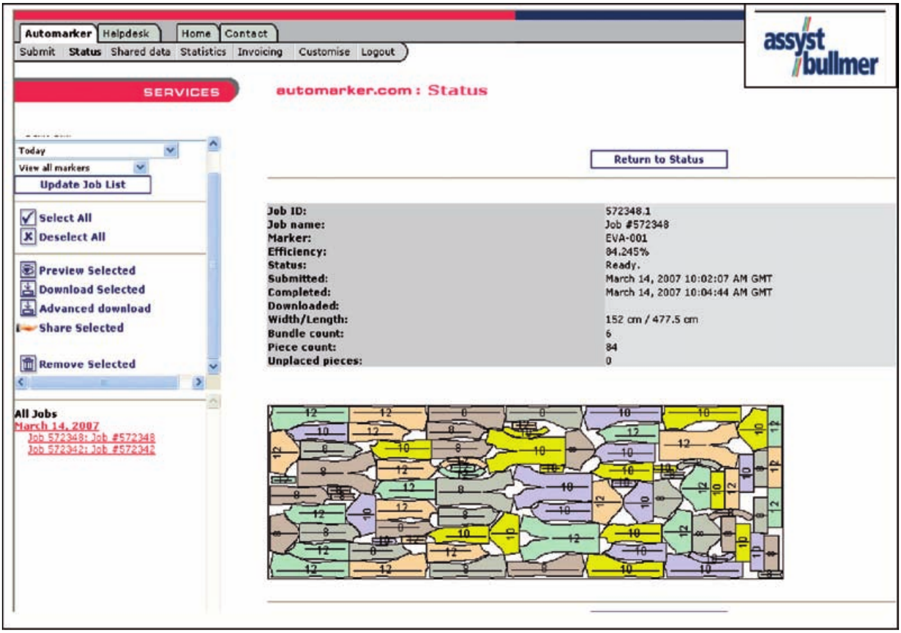
calculate the best plan efficiency for the number of systems is no longer important; data transfer can garments in the order by distributing the sizes in

take place between different pattern generation

different markers to get the best efficiency. Some

systems, plotters or cutters. The user can also watch programs will also calculate any greater efficiencies the results online or inspect the markers when they that can be achieved by changing the proportion of

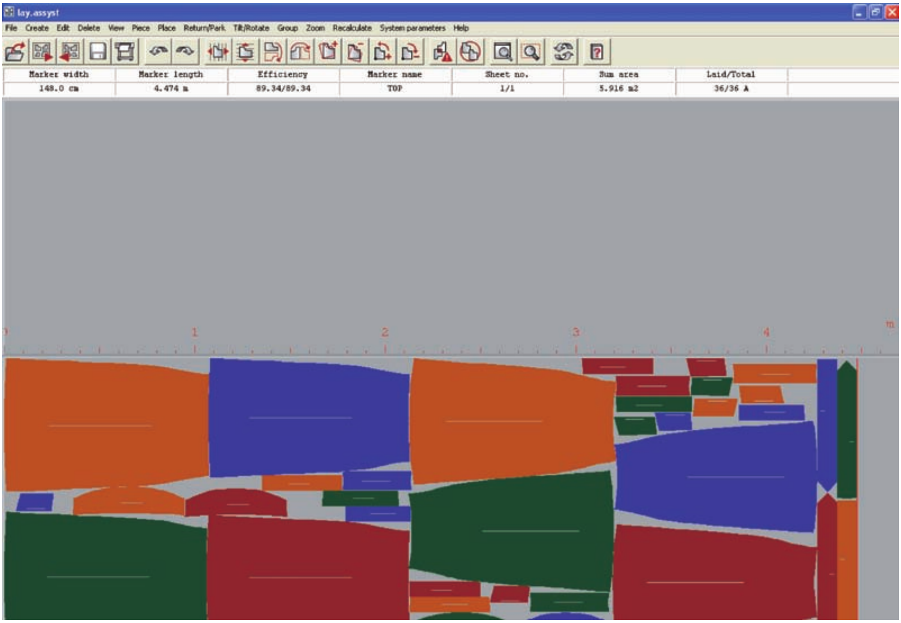
have been completed.


Automarker
Helpdesk
Home
Contact
Submit
Status
Shared data
Statistics
Invoicing
Customise
Logout
assyst bullmer
SERVICES
Today
View all markers
Update Job List
Select All
Deselect All
Preview Selected
Download Selected
Advanced download
Share Selected
Remove Selected
Return to Status

automarker.com : Status

Job ID: 572348.1
Job name: Job #572348
Marker: EVA-001
Efficiency: 84.245%
Status: Ready.
Submitted: March 14, 2007 10:02:07 AM GMT
Completed: March 14, 2007 10:04:44 AM GMT
Downloaded:
Width/Length: 152 cm / 477.5 cm
Bundle count: 6
Piece count: 84
Unplaced pieces: 0

All Jobs
March 14, 2007
Job 572348: Job #572348
Job 572342: Job #572342


lay.assyst
File
Create
Edit
Delete
View
Piece
Place
Return/Park
Tilt/Rotate
Group
Zoom
Recalculate
System parameters
Help
1
2
3
4
m

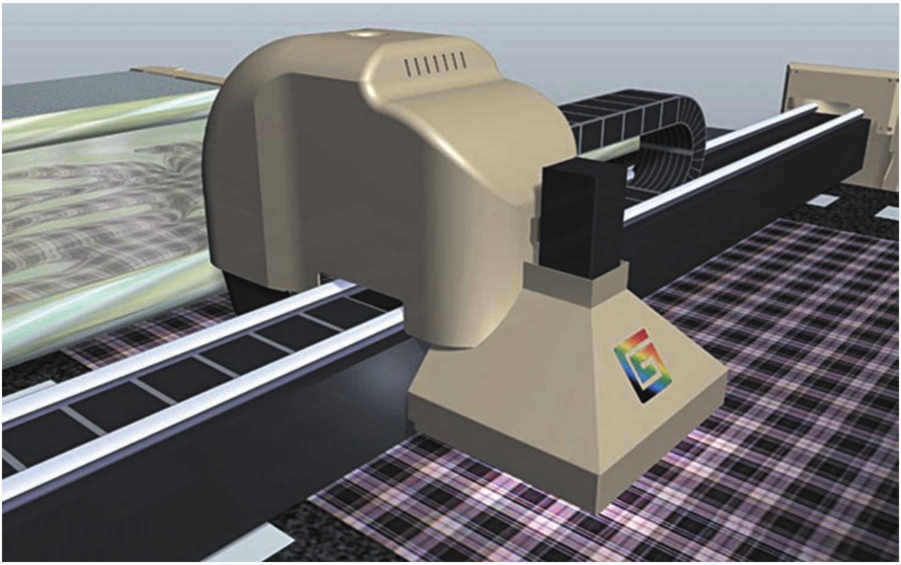
Marker width	Marker length	Efficiency	Marker name	Sheet no.	Sum area	Laid/Total
148.0 cm	4.474 m	89.34/89.34	TOP	1/1	5.916 m2	36/36 A

209

The screen display of a marker making software program. *Illustration by permission of assyst-bullmer.*

automarker.com provides markers for plotters and cutters across the world. *Illustration by permission of assyst-bullmer.*

assyst bullmer



Plotting and cutting

Markers can be plotted out on large plotters or small Lectra and Gerber have developed cutters that use scale on A0 plotters (see photograph, page 204, for

intelligent vision systems to improve stripe and plaid sample costings). The markers can be sent directly to matching even when the fabric is distorted. The high speed deep-ply cutters that cut through many operator uses advanced camera optics to match the

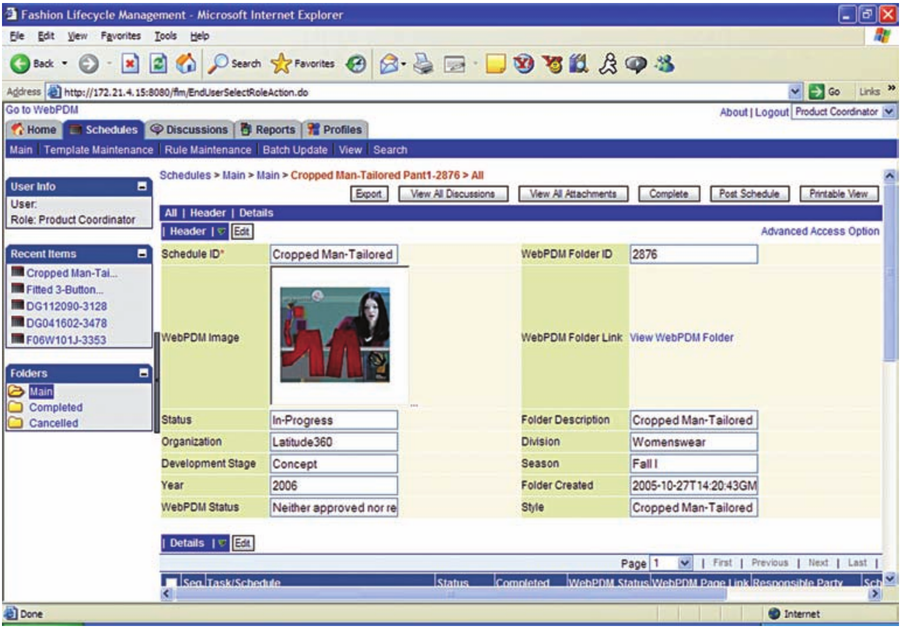
layers of fabric. Smaller or specialised cutters have fabric pieces.

been developed for short runs, single garment or

sample cutting.

Deep-ply cutting on the *'Turbocut'* knife plotter. *Photograph by permission of assyst-bullmer.*

Automatic check matching in the *Invision* program . *Photograph by permission of Gerber.*


Fashion Lifecycle Management - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://172.21.4.15:8080/flm/EndUserSelectRoleAction.do
Go Links
Go to WebPDM
About | Logout
Product Coordinator
Home Schedules Discussions Reports Profiles
Main | Template Maintenance | Rule Maintenance | Batch Update | View | Search
Schedules > Main > Main > Cropped Man-Tailored Pant1-2876 > All
Export View All Discussions View All Attachments Complete Post Schedule Printable View
All | Header | Details
Header | Edit
Advanced Access Option
User Info
Recent Items
Cropped Man-Tai...
Fitted 3-Button...
DG112090-3128
DG041602-3478
F06W101J-3353
Folders
Main
Completed
Cancelled
Details | Edit
Page 1 | First | Previous | Next | Last |
Seq. Task/Schedule Status Completed WebPDM Status WebPDM Page Link Responsible Party Sch
Done
Internet

User:
Role: Product Coordinator

Schedule ID*: Cropped Man-Tailored

WebPDM Folder ID: 2876

WebPDM Image

WebPDM Folder Link: View WebPDM Folder

Status: In-Progress

Folder Description: Cropped Man-Tailored

Organization: Latitude360

Division: Womenswear

Development Stage: Concept

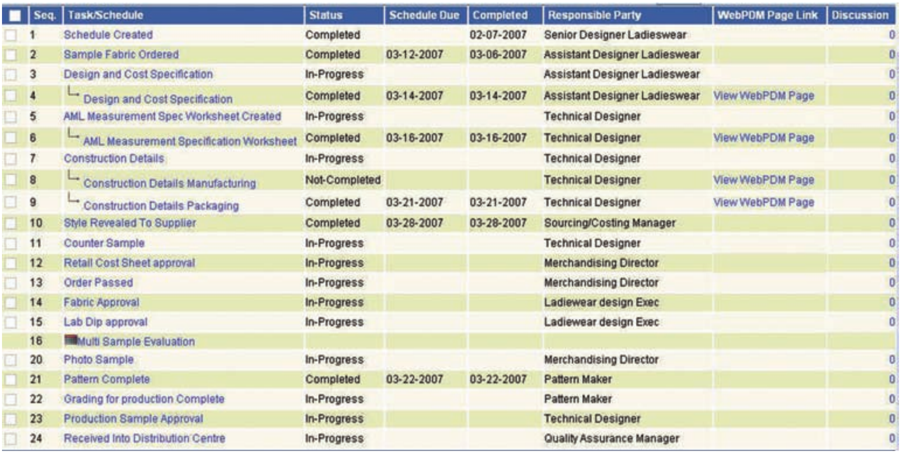
Season: Fall I

Year: 2006

Folder Created: 2005-10-27T14:20:43GM

WebPDM Status: Neither approved nor re

Style: Cropped Man-Tailored



☐	Seq.	Task/Schedule	Status	Schedule Due	Completed	Responsible Party	WebPDM Page Link	Discussion
☐	1	Schedule Created	Completed		02-07-2007	Senior Designer Ladieswear		0
☐	2	Sample Fabric Ordered	Completed	03-12-2007	03-06-2007	Assistant Designer Ladieswear		0
☐	3	Design and Cost Specification	In-Progress			Assistant Designer Ladieswear		0
☐	4	└ Design and Cost Specification	Completed	03-14-2007	03-14-2007	Assistant Designer Ladieswear	View WebPDM Page	0
☐	5	AML Measurement Spec Worksheet Created	In-Progress			Technical Designer		0
☐	6	└ AML Measurement Specification Worksheet	Completed	03-16-2007	03-16-2007	Technical Designer	View WebPDM Page	0
☐	7	Construction Details	In-Progress			Technical Designer		0
☐	8	└ Construction Details Manufacturing	Not-Completed			Technical Designer	View WebPDM Page	0
☐	9	└ Construction Details Packaging	Completed	03-21-2007	03-21-2007	Technical Designer	View WebPDM Page	0
☐	10	Style Revealed To Supplier	Completed	03-28-2007	03-28-2007	Sourcing/Costing Manager		0
☐	11	Counter Sample	In-Progress			Technical Designer		0
☐	12	Retail Cost Sheet approval	In-Progress			Merchandising Director		0
☐	13	Order Passed	In-Progress			Merchandising Director		0
☐	14	Fabric Approval	In-Progress			Ladiewear design Exec		0
☐	15	Lab Dip approval	In-Progress			Ladiewear design Exec		0
	16	Multi Sample Evaluation						
☐	20	Photo Sample	In-Progress			Merchandising Director		0
☐	21	Pattern Complete	Completed	03-22-2007	03-22-2007	Pattern Maker		0
☐	22	Grading for production Complete	In-Progress			Pattern Maker		0
☐	23	Production Sample Approval	In-Progress			Technical Designer		0
☐	24	Received Into Distribution Centre	In-Progress			Quality Assurance Manager		0

Product lifecycle management (PLM)

Web-based PLM systems allow manufacturers to

systems through the production cycle, it gives

create a central product information database that

knowledge of product workflow and line

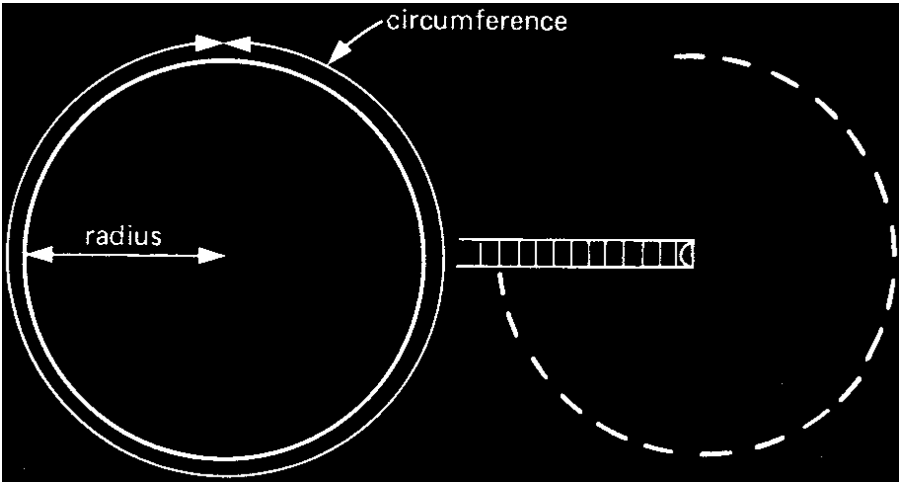
can be accessed globally, from manufacturer to

management. The speed required to get fashionable

retailer, from the earliest phase of the design process styles to market requires a common information base to the retailing of the garment. Integrated with PDM

throughout a product's lifecycle.

The cover page of a PLM software program and a following page giving information about the status of a garment during its lifecycle to its completion. *Illustrations by permission of Gerber.*



Appendix: Aliquot parts

If a calculator is not available for working out fractional parts, the following table can be used. The table covers most of the popular sizes. (Figures in columns marked with an asterisk are calculated to one decimal place.)

Bust, waist and hip (cm)	***1/16**	***1/12**	***1/6**	***1/4**	***1/2**
60	3.8	5	10	15	30
61	3.8	5.1	10.2	15.25	30.5
62					

3.9

5.2

10.3

15.5

31

63

3.9

5.3

10.5

15.75

31.5

64

4

5.3

10.7

16

32

Neck size (cm)

65

4.1

5.4

10.8

16.25

32.5

66

4.1

5.5

11

16.5

33

***1/8**

***1/5**

67

4.2

5.6

11.2

16.75

33.5

34

4.3

6.8

68

4.3

5.7

11.3

17

34

35

4.4

7

69

4.3

5.8

11.5

17.25

34.5

36

4.5

7.2

70

4.4

5.8

11.7

17.5

35

37

4.6

7.4

71

4.4

5.9

11.8

17.75

35.5

38

4.8

7.6

72

4.5

6

12

18

36

39.2

4.9

7.8

73

4.6

6.1

12.2

18.25

36.5

40.4

5.1

8.1

74

4.6

6.2

12.3

18.5

37

41.6

5.2

8.3

75

4.7

6.3

12.5

18.75

37.5

42.8

5.4

8.6

76

4.8

6.3

12.7

19

38

44

5.5

8.8

77

4.8

6.4

12.8

19.25

38.5

45.2

5.7

9

78

4.9

6.5

13

19.5

39

79

4.9

6.6

13.2

19.75

39.5

80

5

6.7

13.3

20

40

Constructing a circle

81

5.1

6.8

13.5

20.25

40.5

82

5.1

6.8

13.7

20.5

41

Some patterns use circles as a base for their

83

5.2

6.9

13.8

20.75

41.5

construction. The following calculations can be made

84

5.3

7

14

21

42

to obtain the radius required to construct a circle.

85

5.3

7.1

14.2

21.25

42.5

- The circumference of a circle is the measurement

86

5.4

7.2

14.3

21.5

43

around a circle.

87

5.4

7.3

14.5

21.75

43.5

- The radius is a line from the centre of the circle 88

5.5

7.3

14.7

22

44

to the outer edge.

89

5.6

7.4

14.8

22.25

44.5

- To construct a circle the radius must be known.

90

5.6

7.5

15

22.5

45

Radius = circumference divided by 6.28.

91

5.7

7.6

15.2

22.75

45.5

92

5.8

7.7

15.3

23

46

Worked example Waistline measurement is 68 cm; 93

5.8

7.8

15.5

23.25

46.5

a circle is required whose circumference is 68 cm.

94

5.9

7.8

15.7

23.5

47

Radius = 68 ÷ 6.28 = 10.8

95

5.9

7.9

15.8

23.75

47.5

Construct a circle, radius 10.8 cm, its circumference 96

6

8

16

24

48

will be 68 cm.

97

6.1

8.1

16.2

24.25

48.5

98

6.1

8.2

16.3

24.5

49

99

6.2

8.3

16.5

24.75

49.5

100

6.3

8.3

16.7

25

50

101

6.3

8.4

16.8

25.25

50.5

102

6.4

8.5

17

25.5

51

103

6.4

8.6

17.2

25.75

51.5

104

6.5

8.7

17.3

26

52

105

6.6

8.8

17.5

26.25

52.5

106

6.6

8.8

17.7

26.5

53

107

6.7

8.9

17.8

26.75

53.5

108

6.8

9

18

27

54

109

6.8

9.1

18.2

27.25

54.5

110

6.9

9.2

18.3

27.5

55

111

6.9

9.3

18.5

27.75

55.5

112

7

9.3

18.7

28

56

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64

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42

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64

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42

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